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SEXUAL KNOWLEDGE

THE KNOWLEDGE OF SELF AND SEX IN SIMPLE LANGUAGE: FOR THE INSTRUCTION OF YOUNG PEOPLE, YOUNG WIVES AND YOUNG HUSBANDS, FATHERS AND MOTHERS, TEACHERS AND NURSES, AND ALL WHO FEEL A NEED OF RELIABLE INFORMATION ON THE BEST WAY AND THE BEST TIME TO IMPART SEXUAL KNOWLEDGE TO BOYS AND GIRLS

BY

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To

Home-builders actual and prospective for the uplift of humanity, and for the conservation of the vim and vigour of childhood and youth, the vitality and virtue of womanhood, the virility and nobility of manhood, this book is fraternally dedicated.—BY THE AUTHOR.



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PREFACE

THOSE powers of mind and body, which are at the basis of our highest aspirations and ideals, give most joy and happiness when rightly exercised, and most misery and degradation when abused.

This is true of the Sex Life as affirmed from the confidences of many hundreds of people who have told the author of the story of their lives—of their intimate, personal experiences. The more we know of life, the more fixed is our conviction of the truth of the general statement that “out of the heart are the issues of life”—as the inner life, so the outer life. *The plane of the life as a whole is not above the plane of the Sex Life in any individual.*

Many parents instinctively feel the truth of this proposition, and wish to teach their children *the great truths of life—God's Truths—which are beautiful and wonderful, inspiring and ennobling.* But our parents have not taught us about these great truths; so we have been groping our way and have made many blunders.

There is a widespread desire on the part of parents to know the truths of life, and to be taught *how to present them to their children.* Mothers are asking what they shall teach their little children, what they shall tell the adolescent girl, and how they may guide the older daughter through the problems of young womanhood. Fathers are asking what they shall tell their boys; and *young married*

people are asking for guidance in home-building and all that that involves.

As the school is an extension of the home, so the teacher is an extension of the parent—perhaps better—*the teacher is vicarious parent to his or her pupils.* Teachers all over the continent are recognizing their *professional and moral duty and responsibility* to co-operate with parents in teaching high ideals and standards of womanhood and manhood.

Social workers of world-wide fame, and educators of international repute, with one accord recognize that for a transitional period of two or three decades, the *Great Truths of Life must be taught in the Schools.* We must produce a generation of parents who will teach these truths in the home, the natural place for such teaching. But this necessitates the special preparation of the teacher for this new requirement. The author has had this in mind while preparing this book.

After many years of study and research, and in the light of many hundreds of personal histories, the author presents here the great truths of life in just the way we would present them to our own sons to guide them through the problems of boyhood, youth, manhood, husbandhood and fatherhood—in just the way we would present them to our own daughters to guide them through the problems of girlhood, maidenhood, womanhood, wifehood and motherhood.

Yours sincerely,

WINFIELD T. HALL.

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each subject.

PART I

SOCIAL ETHICS

CHAPTER I

THE term Social Ethics is a comparatively new one. Its significance is so evident on its face that it hardly needs definition. One assumes that it refers to the right and wrong of social relations, and that is just what it does signify. While Sociology is the science of human society, and ethics the science of the right and wrong of human activities, social ethics may be defined as the ground common to ethics and sociology. In short, it deals with the right and wrong of social relations in human society.

In order systematically to present this matter, it may be stated that social ethics concerns three planes of human activities and relationships. First, the personal plane, which deals with and sets forth personal conditions, personal attitudes and personal habits, which form the basis of, and give the trend to, the social relations. While the activities in this plane might seem not to be social, as a matter of fact, they are basic in their relation to the social, and must be considered in this connection. Second, the family plane, which deals with and sets forth family relationships in so far as they concern ethics and society. Third, the social plane, which deals with the right and wrong of social relationships in human society outside of the family.

Social and domestic happiness and well-being are so

indissolubly linked with ethical standards, ideals and practices, that it becomes absolutely essential that all those constructive forces of society pledged to conserve and protect society be marshalled against social wrongs and reinforce social good.

Expressions which have been frequently heard in the last decade, as the "social evil," "venereal peril," etc., indicate the preponderant social wrong from which society suffers, and the predominant retribution which Nature seems to mete out against this wrong. As a matter of fact, *a very large part of ethical wrong living has to do with the sex life*, usually manifested in all the three planes mentioned above, namely, personal, domestic and social. While it is true that the venereal peril menaces the innocent, as well as the vicious, it is also true that if all people would live absolutely clean and correct sex lives for two generations, venereal disease would become as rare as smallpox or cholera, while now it probably *affects in smaller or greater degree, at least fifty per cent. of the whole population*. These millions suffer, either innocently or otherwise, for the sins of others or for their own shortcomings, the saddest cases of all being those who suffer for the results of inherited taint.

If we may rely upon statistics, the social evil is getting worse rather than better. Even the optimist must admit this, and while he sees commercial, industrial and political conditions improving step by step, he is forced to admit that social conditions are getting worse. We do not have to look far for the cause.

Our population is increasing most rapidly in the great urban manufacturing centres; large regions of our rural districts barely holding their own in population during the last generation, some actually decreasing. If this centring of the people in great cities and rapidly growing towns

could have been controlled, the ills and wrongs might have been largely avoided, but they were not controlled; in fact, we are only now discovering the unfortunate tendencies which have been at work. People have crowded together in such close proximity that vegetation is crowded out and breathing spaces contracted. Furthermore, in large districts of our larger cities, the housing of the people is shockingly bohemian. Where a whole family—parents, grown children, adolescents and younger children are housed in one room, which one room must serve as kitchen, laundry, dining-room, parlour and sleeping-room, it goes without saying that young people growing up under such conditions are likely to lose, or rather never experience, the sentiments and feelings associated with modesty and refinement.

Young people in our great industrial and commercial centres are crowded together in the department stores, shops and factories under conditions that are not only unsanitary and unhygienic in many cases, but at the same time may be unwholesome from a social standpoint. After their eight or nine-hour day under these undesirable conditions, we can easily understand why the young people should be led to seek entertainment and recreation from their mechanical and unstimulating shop work at the same time they seek escape from the wretched home conditions. We are, therefore, not surprised to see them flocking to the cheap vaudevilles and moving-picture shows, and to the public dance halls, where they are likely to be subjected to destructive suggestion that will tend to rob them of what little of right standards remain after the effects of their home and shop influences have done their work. Summarizing then, we find that the destructive influences of urban conditions in the housing of the people, in the employment of the people, and in their recreative activities are tending more and more to lower social standards. If

conditions are not changed, social dissolution will surely follow in a few generations.

These unfortunate conditions mentioned above menace the home. Now, *the home is the foundation of human society*. There could be no Church: there could be no State; there could be no Educational System without the home. If the home—the foundation of human society—crumbles, the whole superstructure would come down in ruins, and we would have social anarchy.

But this is not to happen. There is a general awakening. We have been analysing conditions, diagnosing the social disease. We have determined its etiology. Having found its cause, the rational treatment has already been begun.

A study of the social conditions makes it evident that *a vast preponderance of social ills are visited upon the people because of ignorance*. Little children fall into error because they have not had the benefit of wise counsel and guidance. Young people make blunders because they are ignorant of personal physiology and hygiene. Older people through ignorance or indifference need education and awakening. The writer believes that *the only rational cure for present social conditions is to be found in education*. Wise laws, justly and firmly administered, will help. Public institutions for the reclaiming of the fallen will also help. These two measures last named alleviate in a superficial way only. What we must seek to accomplish is to remove the cause, so that these ills will not exist, and therefore not need alleviation. In the social evil as well as in the drink evil, *it is necessary that the education—the rational prophylaxis of the evil—be begun in youth*. It is very much easier to keep a young life straight than it is to make it straight once it has become bent and distorted. Let us then emphasize again the paramount

importance of education as the great prophylactic agent to protect society from the ills that follow wrong living.

Inasmuch as the difficulties to which we have referred begin in childhood and youth through innocence and ignorance, it must be evident that the education must begin in youth. Those who have given this problem extended study and thought all agree that education in social ethics is a *home problem*. *Parents must teach their children the great truths of life.* Coming from parent to child this teaching will be certain to have its two great essentials, namely, sincerity and sympathy. However, we find that a very small proportion of the present generation of parents possess either the requisite information or the necessary inclination to give this instruction.

There must be a transitional period, during which educators, social workers and all the constructive forces of society work together to produce a generation of parents who will possess both the information and the inclination. That means that we must go into the schools and teach the great truths of life to these children and youths. In this great work for society, let us never lose sight of the fact that we are doing this work in our relation of vicarious parenthood. We must school ourselves to feel towards these young people as a parent feels towards his child. The instruction must be given in all seriousness, candour and simplicity. *It must be put on the plane of the ideal.* There should be an attitude of sympathy towards the pupil. Those who have not had experience in this teaching can hardly conceive how beautifully the young people respond in their intense attention, and in the seriousness with which they receive the instruction.

The education of youth in this transitional period should begin in colleges and universities. It may be said in pass-

ing that a considerable number of our institutions of higher learning have already made a good start in this teaching. We may look forward with assurance to a time in the near future when all these institutions will recognize their obligation in this direction and will have this instruction given systematically.

Instruction in social ethics and sexual hygiene must also be introduced into the high schools. Most high school pupils are in the earlier period of adolescence. The need for instruction is at no period of life greater than at the threshold of adolescence. The response of the pupil is at no period of life more ready or wholesome. It is, therefore, a matter of the greatest importance that instruction in social ethics and sexual hygiene be introduced into all the high schools of the land at the earliest possible day.

Pupils in the grammar schools need certain facts brought to their attention, and this need is hardly less imperative than is the need in the high schools. The girls of the seventh and eighth grade are, as a rule, coming into adolescence. Probably a large majority of eighth grade girls in general are in their first or second year of puberty. Their mind is filled with questions about life, and they instinctively show a sort of hypersensitiveness on sex matters. Their mothers have, as a rule, not instructed them. The schools must do it. The problem of the grammar school boy, while less a sex problem than one of inherent barbaric vulgarity, is still one that requires great tact, patience and skill on the part of the teachers. The seventh and eighth grade boy is still in his pre-adolescent period, still in his period of barbarism. He has not felt the primordial urge in his red blood, but he does show the barbaric tendency to crudeness, rudeness and vulgarity. While we are not going to lose our patience with this boy,

nor are we going to become discouraged about him, we are going to extend to him from our elevated position of twentieth-century chivalry a sympathetic helping hand that will guide him quickly through his storm and stress period, and help him early to step up out of barbarism into his period of dawning chivalry.

This teaching in the grammar school requires incomparably greater tact and pedagogic skill than the teaching in colleges. It must be done by trained teachers. Professional people, either physicians or social workers called in from the outside, cannot do this work for the simple reason that the number of physicians and social workers who possess the pedagogic skill, and knowledge of, and sympathy with, child life is wholly inadequate to meet the requirement, even if they were to devote their whole time and energy to it. Besides that, the psychic effect on the pupils of calling in somebody from the outside is unwholesome and studiously to be avoided. It enshrouds the whole matter in a mist of mysticism and excites the curiosity and a tendency to talk among themselves with great danger of unwholesome results. This teaching of the great truths of life concerning reproduction and sex must be done by the teachers of the grammar school. But the teachers of the grammar school are not prepared, either in their own mental attitude, the information they possess, or in their pedagogic training. The whole field of sex is to a vast majority of teachers a *terra incognita*. For a period of four or five years before we require sex instruction in the grammar schools, the subject of social ethics, social hygiene and sexual hygiene should be taught in the Normal schools.

The Normal school course in social ethics should accomplish three very clearly defined objects. First, to give the pupil teacher a wholesome viewpoint concerning social ethics in all its bearings, displacing false modesty with

real modesty and leading the student from the dimly lighted valley of prudish ignorance to the high sun-bathed mountain tops of idealistic virtue. Such a change of mental attitude is wholly and solely a matter of education and is the first thing to accomplish for the pupil teacher. Second, to give the pupil teacher adequate information concerning the biology of reproduction, the physiology and hygiene of the sex apparatus and sex life, also the sociological and ethical principles involved in sex hygiene and social ethics. Third, to train the pupil teacher in the principles of pedagogy of this particular subject. It may be stated in passing that the teaching of no subject requires greater pedagogic skill and tact than this one. In the presentation of no subject does the teacher require a greater knowledge and insight into the psychology of youth than is required in the teaching of sex hygiene.

After all of the Normal schools of a State have had a course in sex hygiene and social ethics presented to every student in the school for a period of four or five years, it may be wise, and the time may be ripe, to require this teaching in the grammar schools, because by that time there will be many hundreds of teachers in the State who will have been trained for this teaching, and the probabilities are strong that almost every village and city school will have on its corps of teachers, from one to a half-dozen who will have had the benefit of this instruction in the Normal school, and who will be prepared to give this instruction in an acceptable manner.

Answering the question when and how shall this instruction be given in the ideal case, let us repeat what was stated above that this is *a home problem*. Fortunately, Nature points the way with a great shining index. Nature has implanted in the heart of every child the instinct of asking

questions. The mother and teacher have only to answer these questions when they are asked; answering briefly and simply, and always in a spirit of sympathy and love, to rest assured that they are following the plan of Nature, and if the plan of Nature, then the plan of the God of Nature.

The first question asked by the child is almost certain to concern its origin. The little five-year-old girl creeps into mama's lap at eventide, and nestles her head on mama's breast, and asks: "Mama, where did you get me?" Then she waits for mama's answer. No real mother, under such circumstances, could bring herself to the point of telling the "stork story" to the child. Such a response to such a question would be unworthy of the twentieth-century mother. You may be interested to know what one twentieth-century mother told her child in response to a similar question. Her little six-year-old boy was brought to his mama's bedside and introduced to his two-day-old baby sister for whom he had watched and prayed for several months. He was very happy; God had answered his prayer; presently he asked: "Mama, where did the baby come from?" This was the mother's answer: "Baby sister came out of mama's body; she was formed within mama's body; she was formed from materials drawn out of mama's blood, and that is the reason why mama's cheeks are so pale and mama's hands so thin and white." The little boy's eyes opened wide with wonder. This story was to him incomparably more wonderful than the stork story would have been. He looked thoughtfully from mama's pale face to the little baby sister, back and forth several times. Then he asked this question: "Mama, was I formed within your body, too?" The mother answered, "Yes, my boy, you were. You were formed within mama's body, you were formed out of mama's blood, and that is the reason why mama loves her boy so, because she

gave her own life's blood for him." The little boy's eyes now took on a far-away look, and he seemed to be trying to grasp the great thought of mother sacrifice. He evidently did catch at least a glimmer of the great truth, because after a few moments his eyes welled full of tears, and turning to his mama, he threw his arms about her neck and said, "Oh, mama, mama, I never loved you so much before," and the little boy meant it, too, because from that day forth for many weeks he seemed to think of little else during his waking hours than what he could do to help the mother who had been so ready to sacrifice for him. This happened several years ago. The boy of six has now grown into the young man of twenty—stalwart, broad-shouldered, deep-chested, hard-muscled, clear of eye, clean of life and chivalrous. He must be the pride of his father's heart, and the joy of his mother's heart. He is a neighbour of mine, and I have watched his development with great satisfaction. His attitude towards all womankind seems to be inspired by instincts of chivalry and honour. That this attitude has been developed by the teaching which his mother has given him from boyhood up, supplemented perhaps by some instruction and example on the part of his father, no one can doubt. Can there be any question, that when the time shall come, that all boys and young men will have been led into chivalrous young manhood in a similar way, and when all girls and young women will have received from their parents a training which will give them a reciprocal attitude towards mankind, then the social problem will have been solved. *Its solution is a matter of education, pure and simple, and this education must begin in early childhood.*

The next question which the child asks, as a rule, concerns the physical differences between the sexes. Your little six or seven-year-old girl may come with the question

as to how the mother knows whether her new-born baby is a boy or a girl. This is a fair question and must be answered; otherwise, a suspicion of mystery is at once aroused and a gnawing curiosity is developed. The wise mothers in all generations have adopted a very simple method of forestalling this question, and presenting in the family, conditions which answer the question in the most natural and simple way. I refer to the custom adopted by the wise mothers in all generations of having the little children of the family meet in the nursery at bedtime at least one evening in the week in what some mothers call an "undress parade." Other mothers call it a "bath night frolic." The little boys and girls of the family ranging in age between two and seven or eight, enter into these frolics with the keenest and most unalloyed pleasure. Never so free of movement, never so happy, and it may be said in passing, never more modest than when freed from the hampering habiliments with which civilization has clothed us. As recently as four thousand years ago, our ancestors were practically nude savages living in the forests of southeastern Europe and western Asia. They were children of Nature, and like these babies of our twentieth-century Aryans, so far from being immodest in their nudeness, possess what the sociologist recognizes as absolute modesty, that is, modesty so perfect that in the nude they are unconscious of their nakedness.

Incidentally, little six-year-old Margaret is almost certain to note a difference between herself and little Mary, on the one hand, and Jimmie on the other, and will remark in her childlike innocence to her mama : " Little Jimmie isn't made the same as Mary and I, is he, mama? " And the mama will answer in a perfectly matter-of-fact tone : " No, little Jimmie is made like all boys and men, while you and Mary are made like all girls and women." This answers

the question for all time, so far as Margaret is concerned. In their turn each of the other children will ask similar questions or make similar remarks to be answered in the same matter-of-fact way, and so grow up without morbid curiosity regarding structural differences between the sexes. If some of you are worrying about Margaret's modesty, let the writer assure you from the uniform experience of hundreds of mothers with whom he has conferred, that when Margaret reaches the age when impulses and instincts of modesty usually appear in a girl, they will dawn in the soul of Margaret as naturally as the rose in the garden blooms in June. If a girl grows up in the atmosphere of modesty and consideration, the atmosphere being determined by the mental attitude and the habits of the older people of the family, rest assured that when she approaches puberty, the instincts and feelings of modesty come into her experience as a natural and inherent heritage of our race.

When the children approach puberty, there should be a parting of the ways for the girls and the boys of the family, the girls coming into a closer comradeship with the mother, while the boys are led and inspired by the father. It is the inherent right of every girl to be led into beautiful exultant womanhood by a loving mother, as it is equally the inherent right of the boy to be led into clean, aggressive, triumphant manhood by a fond father.

As the mother sees her daughter growing rapidly in stature at the age of twelve to fourteen, and recognizing that this sudden growth in stature heralds the approach of womanhood, the mother seeks an opportunity to instruct her daughter in the ideals of womanhood, giving her the facts that she needs to know to guide her through the many problems, personal and social, that confront the adolescent. There are three important lessons that the wise mother teaches her daughter.

The first lesson for the girl to learn is the "Story of Womanhood." The mother may picture the typical twelve-year-old girl in all her lean and lank, awkward and gawky clumsiness, self-conscious, ungainly and unprepossessing in the highest degree. This pre-adolescent girl is in her "ugly duckling" stage of development. Now let the mother picture what the girl is to be in four or five short years. Graceful in figure, graceful in every movement of her body, possessed of poise and repose, her rosy cheeks glowing with the red blood of good health, her lustrous eyes luminous with the light of radiant young womanhood. Then the mother reveals to the daughter the secret of this remarkable change and tells her how, when the little girl was about thirteen years of age, her ovaries began to prepare a wonderful substance that was absorbed into the blood, and through the blood distributed all over the body where tissues were growing and changing, and that this wonderful substance—this magical stimulus—formed in the body for that purpose, caused the remarkable transformation in the girl's body, and no less remarkable a change in her soul, possessed as it is, first, of *purity*; that matchless quality that runs like a golden thread through the whole fabric of her life; second, of *altruism* or unselfishness; that second great quality of the soul of woman, also of other hardly less beautiful qualities that make her soul so beautiful that, when once it is really seen, one is after that hardly conscious of her body, however perfect that may be. The mother explains to her daughter, that this great change, which is the first step of developing womanhood, is due to a substance formed in her ovaries—formed in her sex apparatus.

When the girl knows this great truth, from that day forth she naturally looks upon her sex apparatus as *sacred to her womanhood*, and a few words of counsel from the

mother will guard the daughter against ever permitting or indulging anything that will irritate or excite this part of her body, being assured that such irritation and excitation will disturb the great work, which, in the plan of the Creator, her sex apparatus must do for her womanhood.

The second lesson which the mother teaches her daughter is a simple, clear explanation of the monthly period which is soon to be a part of the daughter's experience. She forestalls fears and forebodings by explaining to the daughter that this experience, which may be difficult at first to adjust herself to, is, in the plan of the Creator, her preparation for future motherhood. As this healthy-minded, perfectly normal, twentieth-century girl is looking forward to future motherhood, as a natural and much-to-be-desired experience, her mother's explanation is accepted in the right spirit and the girl looks forward with confidence and serenity towards her approaching estate of womanhood. When it comes, all its experiences are accepted as a matter of course, and in a spirit of pride and confidence.

The third lesson which the mother teaches her daughter concerns her relation to her young gentlemen friends. Even though a girl may not formally enter society until she graduates from high school, she is in reality in society as soon as she enters high school. Adolescent high school young people are experiencing the social impulse and yielding to the social instinct. The relations of young people in the high school are in all seriousness social relationships, and should be so viewed by all who have any relation to secondary education. So the girl's mother prepares her early for this new relationship by explaining to her the ideal social relations between young women and young men of her circle. The information that the mother has given her daughter in the first two lessons makes it very evident to

this budding woman that, her person being sacred to her womanhood, she should not permit any familiarities on the part of her young men friends. Parents and teachers, perhaps through the organized agency of a Parent-Teachers' Association, will cordially co-operate in the bringing about of ideal social conditions in the high school. All gatherings of high school young people will be chaperoned. This chaperonage should be as wise and tactful as it is constant.

It is the inherent right of every boy, particularly between the ages of ten and fifteen, to have the guidance and the inspiration of his father. During this stage of a boy's development, the pre-adolescent stage, the boy is living over again, in his psychic and social development, that period of his race when his ancestors were in a barbaric stage of civilization. So the boy of ten to fourteen is in a way a barbarian. He may be cruel and vulgar, he is sure to be blundering and blustering, especially if he is a really, healthy, normal boy. His mother and his woman teacher are taxed to the limit of patience with this young barbarian. It is the time of his life when he needs the firm, kind hand, perhaps the strong arm, of a man to guide, inspire and control him. Boys of this age should have the benefit, not only of a father's influence, but also of the influence of a man teacher, and perhaps in addition to this the help of boy leaders in Y.M.C.A. or Boy Scout work. The boy is in his age of hero worship. The robust, the sturdy, the daring, the belligerent experiences and exploits of men appeal to him. He quickly scans the pages of history and picks out his heroes. All of his heroes are fighters. War and the chase are in his blood. Those qualities of his father that appeal to him and lead him to put his father's name on his list of heroes, are not the qualities that appealed, and still appeal, to his mother to inspire her love

and confidence, but they are the qualities of barbaric heroism—those qualities of physical agility and endurance which helped his father to win athletic victories and break athletic records. They are the qualities that were developed and fostered in war and the chase. So the wise father, the twentieth-century father, becomes a chum of his boy not later than his tenth year. He cultivates a real live interest in his boy's activities and aspirations. He attends the track meet between his boy's school and the neighbouring schools, acting as referee, umpire or judge on the occasion. He takes half holidays during the summer vacations to join the boys in their ball game in a vacant cow pasture. He goes on short camping trips with his boy and on many a long tramp. In these ways he and his boy become chums, comrades in war and the chase. It makes the boy more mature and thoughtful, more self-reliant and confident, while it rejuvenates and rests the father. Once the boy's confidence and love are inspired, the father sets about systematically to give him three great lessons in life; beginning his instruction where the mother left it off.

The first lesson which the father teaches his son is *the story of manhood* and *the secret of virility*. He describes what it means for a boy to grow into a man, and how, after a brief period of lank, awkward, self-conscious clumsiness, the boy develops masses of muscles on shoulders and chest, upper arms, forearms, back, hips, thighs, legs. When these muscles come under the control of his will, as they should in his later teens, he will have received from mother Nature "the three B's" of young manhood, namely, Bone, Brawn, Brain, so that at eighteen years of age, the young man should be able to stand out before the world, broad-shouldered, deep-chested, erect, supple, hard-muscled, fiery-eyed and resourceful, full of initiative and will power, ready to get into the world's work. Thus the father tells

him the "*Secret of Manhood*," and explains about the internal secretion that is prepared in the boy's testicles from his fifteenth year on, and that this internal secretion absorbed into the blood and distributed throughout the body, causes the development in the youth, of all these qualities distinctive of virile manhood. Deprived of these sex glands, the boy would develop, first, into a sissy, and finally at twenty-five he would be a slope-shouldered, narrow-chested, flabby-muscled, beardless, squeaky-voiced molly-coddle, absolutely lacking in every instinct and attribute of manhood. When the boy hears this from his father, he readily understands that his sex apparatus is sacred to his manhood, and that he should never do anything to irritate or excite that part of his body for fear of disturbing Nature's plan for his development of all the matchless qualities of manhood.

The second lesson, which the father teaches his son, is a simple, clear explanation of the nocturnal emissions or so-called "wet dreams." The father explains that every two to four weeks a liquid will flow away from the boy's sex apparatus. This usually happens when the boy is sound asleep. He suddenly awakens to find that he has had a "wet dream." What has happened is a very simple little physiological phenomenon that is perfectly natural and simply means a relieving of local tension. All the boy needs to do about it is to forget it and pay no attention to it. However, it is very important that the boy understand about this experience, which will be periodical and may last for many years; otherwise, he is likely to worry about it, and think that he is subject to a sexual weakness. Not only do young men frequently misunderstand this matter, but it is frequently misunderstood and misinterpreted by others. It is just as right and proper for the young man's mother to understand this phenomenon in the sex life of

her son, as it is for the father to understand about the monthly period of his daughter.

The third lesson, which the father teaches his son, concerns social relationships with his girl friends. Helped by a little wise guidance and instruction from his parents, the boy readily adapts himself to the impulses of chivalry, which are stirring in his breast. While these impulses are of inestimable value in developing the highest social qualities, they need guidance. It is the unguided and unschooled social instinct that leads the young man to make advances towards familiarity in his relation with his girl friends. The impulse to protection when unguided would prompt him to put his arm about his girl friend. The same impulse under guidance inspires in him the attitude and the daring of the chivalrous sixteenth-century knight doing homage to a lady of the court, ready to endanger his life to protect her, and ready to fight to the death in defence of her name and honour.

Where parents and teachers co-operate to teach the youth these great lessons of life, we insure the conservation in the child, of those qualities that make for the fullest manhood and womanhood. Physical health is preserved, and physical stamina developed. Physical poise is maintained, and the highest ambitions inspired in the fullest and best sense of the term. The youth of the race is conserved through this early and tactful teaching of the great laws of life.

PART II

MANHOOD

THE YOUNG MAN—THE HUSBAND—THE FATHER

CHAPTER I

ANIMAL INSTINCTS

EVERY male is endowed by nature with several, perhaps many, instincts. One of the most universal instincts is the instinct for getting something to eat. The young of all higher animals begin to seek food within a few hours after birth. The young of birds will open their beaks for food within a few minutes after they have broken the shell that imprisoned them, and launch upon their new life.

This instinct that impels the young animal to seek food is only one of the several instincts, all directed towards self-preservation. The young of most animals have the instinct of secretiveness. Young partridges, on the approach of any danger, will instinctively secrete themselves in the grass and leaves so effectively that one could look long and carefully at the very place where they are hidden without being able to see them. The young calf or the young fawn will drop into the grass, when warned by the mother, draw its ears close to its head, lie close to the ground, and remain effectively hidden from the observer, unless he stand almost directly over it.

One form of self-defence makes itself shown in the instinct to flee from danger. Many young animals are equipped from their earliest hours of life with the power of flight. Even young fawns, within a few hours after birth, can run with prodigious speed and endurance. Presently, as an animal gains experience and gains in age and strength, the instinct of standing his ground and fighting becomes evident; and many animals will manifest this instinct comparatively young in life.

In these several instincts of hiding, fleeing and fighting, we have cited sufficient examples of the instincts of self-preservation and defence. The instinct of procuring nourishment, mentioned at first, is one which urges the animal all through life to seek food. In the case of many animals, the food supply in the early days, weeks, or even years of life may be furnished by the mother or the parents. For example, the mammal mother, as the cow or horse or the human mother, furnishes her young with milk prepared in her own milk glands. The bird mother brings tender morsels as seeds and worms to her nestlings.

But after the first stages, the young must begin to seek its own food; the parents begin to withdraw their support, and the young must, either from prowess or strength, secure its own sustenance. The young bird must scratch for itself; the kitten must learn to catch its own mice; the young dog must learn to track and capture its own rabbits; the young lion must overtake and overcome its own prey; the young man must earn his own bread. This scratching for himself, this overtaking his own prey, this earning his own bread, is the best thing that can happen a young animal, whether that animal is a bird, a beast or a man, because this fight for existence makes his eyes keener, his muscles more alert, and his teeth or claws or other weapons of war sharper and more effective.

Now, all these instincts discussed above, instincts common to all animals, if we consider them in their broadest relationships, are, without exception, directed to self-preservation. So the instincts of self-preservation are, first, those that have to do with the procuring of nourishment, and, second, those that have to do with defence against danger. All these instincts, however, that we have named, are devoted wholly to self. They are the selfish instincts. They are the instincts of individualism. The scientist calls them the *egoistic instincts*. In all these instincts of the animal, no provision is made for others; it is all self-centred. We can readily understand, as we consider the matter, that no animal is in a position to help others until he has first insured his own safety. A mother cannot give suck to her young until she has herself procured the material in the form of nourishment.

But a study of animal instincts in the broadest sense shows that there is another group of instincts just as deeply implanted, and, while somewhat less important for the individual, are incomparably more important for the race than those already discussed. Reference is made to the instinct of procreation, the instinct of bringing young into being: On the part of female animals, the instinct of giving birth to young and caring for their young; on the part of male animals, the instinct of seeking to procreate or seeking alliance with a female animal, to mate with her, and of copulating with this female animal with a view to procreation—with a view to bringing forth young. In the lowest animals, as well as in the plants, reproduction, and, to a certain rather limited extent also, nutrition and defence are more or less automatic; but the automatic phase of these instincts becomes less and less marked the higher we go in the scale of animal life. In the fish, for example, the instinct of the female, as she feels her body swell with

the growing eggs within, is almost an automatic or a mechanical one, as she seeks a quiet little pool in a creek or a cosy little nook in a pond, and noses the bright pebbles together into a sort of little nest, where she deposits the eggs from her ovaries. Similarly, it seems to be largely an automatic act, purely instinctive, and hardly with any show of forethought or desire on the part of the male fish, as he comes to this nest of a female of his species as thus prepared, and just filled with eggs, to spread over this nest and empty upon the just-deposited eggs the contents of his spermares. These parent fish, having deposited eggs and spermatozoa—eggs by the thousands and spermatozoa by the millions—pass on to give no attention whatsoever to the young that hatch out a few hours or days later. These young, numbering into the thousands, must seek their own food, after the small egg yolk is consumed, and they live a more or less unprotected life, a prey to other fish, so that the chances are that not more than four to six of the thousands of young ever come to full adult maturity, thousands having been preyed upon by other and stronger predacious water animals.

When we advance in the animal scale to the birds we find evidences of conscious mating, as a rule, though in some species of birds that live in flocks, gregariously, rather than in pairs, the mating is less evident. In the case of these gregarious birds that live in large flocks, as we study their habits, we note the tendency for the larger, stronger and better equipped males to monopolize several or even many females, while the weaker animals are fought away and kept from mating with the females. And this is advantageous, of course, for the race, because it insures this great advantage, that every young animal coming into life has a physically perfect male ancestor. This, of course, is a matter of no small importance to the

species, and tends to maintain in the species all their finest qualities.

Among those birds that mate, it is interesting to note what is known among biologists as sex attraction. For example, the male birds, as a rule, possess certain striking qualities, either in beautiful plumage or in beautiful song, perhaps both. The females, as a rule, are less beautiful singers, and less gaudy in plumage. The males are active, actually courting the females. The females are modest, retiring little bodies who wait to be courted. They are strongly attracted to those males that possess the finest qualities. During the mating period of a few weeks in the spring, the pairing off of mates is accomplished, and each pair seeks some secluded place to build its nest, and male and female birds work with great industry for days in the preparation of their season's home. The days devoted to the building of the nest are not wholly given up to the work-a-day life. They are courting continuously, and not infrequently during these days they are seen billing and cooing as they work. Once the nest is finished, the female bird begins daily to deposit an egg within it, and daily the male copulates with her, fertilizing these eggs as they pass from the ovary into the oviduct. During these days of egg laying, the male bird is likely to devote himself to song, if they belong to species which possess this gift. The male bird sits near the nest where the female is depositing her eggs, and entertains her by the hour with bursts of song. If it is fine feathers and beautiful plumage that has commanded him to his mate, he delights to parade these before her eyes as she sits demurely on her nest. He may bring her occasionally, as a mark of his devotion, tender morsels that he has got from a neighbouring garden. Once the full quota of eggs has been deposited in the nest, the mother bird enters upon

the trying ordeal of incubating or hatching these eggs. This necessitates, upon her part, a great sacrifice. She must sit hour after hour, and day after day, upon these eggs for two or three weeks, and never must they be allowed to cool. Every day the eggs must be turned over. This she does very carefully with her beak. As a rule, the devotion of the male bird reaches its highest point during these days. He brings his mate, many times a day, nourishing and tender bits of food which he has procured in his foraging. Sometimes he may even condescend himself to keep the eggs warm for a half-hour or so while his mate is off for a morning constitutional and to seek for herself some seeds and grubs in a neighbouring field.

After the little birds are hatched, the parent birds devote themselves to the protection and the feeding of their ravenous little flock of nestlings for several weeks, until these birds are able to leave the parent nest, when they are pushed out to look after themselves. Once the nestlings are out in the world independent of the parents, the mating instinct, the solicitude and devotion and sacrifice of self for the other, so touchingly and beautifully shown by the parent birds during the height of the mating and nesting season, begins to wane, and later in the season they may join in a general flock and almost, apparently, forget each other, as the birds wing their way in large gregarious flocks to the Southland to spend the winter. In the remating of the following season, they may choose other mates, though some birds apparently are mated for life.

When we study mammals, those hairy-coated animals that suckle the young, we find very similar conditions; that is, some of these animals are gregarious and live in large flocks or herds, the mating of the breeding season apparently being determined wholly by the aggressiveness and masterful fighting qualities of the males. Take a

herd of range cattle, for example; the strongest bulls of the herd will fight away the weaker ones from the cows that come in heat or rut, and copulate with these cows, mating with them for the day only, and on successive days with different cows as these come into the condition of heat. In that way, one great masterful bull, out of twenty bulls in a herd of a hundred cows, may easily sire twenty or thirty calves; and, of these twenty bulls, probably five will sire most of the calves, the weaker bulls having no access whatsoever to the females that are in rut, or at most serving only one or two cows out of a hundred.

The bulls are equipped by nature with admirable and awe-inspiring fighting qualities. In the wild state, these animals, and particularly the strongest bulls that have been most active in the breeding season and have sired the largest number of calves, will be the ones whose instinct impels them to protect the herd in case of danger. They will instinctively protect the cows and calves from an onslaught of wolves or other rapacious animals whose instincts lead them to stampede the herd in order to throttle the weaker members, as for example, the calves. On his part, the bull instinctively protects the herd from such animals; and his natural equipment of sharp, strong horns fits him for meeting the pack of wolves, and, catching a wolf on his horns, he will disembowel it. It is the wolves, perhaps, that are stampeded, instead of the herd, the herd being protected by these splendidly equipped fighting animals, which are the natural defenders of the herd.

The buck deer, or elk, or the bull moose chooses a mate for life. This mate is protected against danger, and her favour is courted by her beautiful and splendidly equipped fighting mate. This family may be, and frequently is, increased by the addition of another, perhaps several does,

whose mates have been killed by the hunters. This instinct of the doe to join herself to another male when her mate is killed—a thing which happens not at all infrequently in the North woods—accounts for the fact that many of the bucks are polygamists, having two or three mates.

While we do not see in these animals the poetic and beautiful traits of courtship and chivalrous gallantry that are so beautiful and attractive in some of the bird mates, we cannot watch their traits without being conscious that there is a fidelity and devotion between these animal mates that may well serve not only to arouse our admiration, but compel our respect for the instinct which joins these mates together and holds them in a sort of family circle, each contributing his or her share to the well-being of their little group. The young are protected and cared for with a devotion and singleness of purpose that is beautiful and poetic, though we recognize it to be instinctive.

When we come to a consideration of these instincts of mating and procreation in the human species, we see it is only an extension of a deep, well-defined instinct that has come to man from the remote past. In man this instinct differs from that of the lower animals only in intensity. While in the lower orders of animals, as already set forth above, there is a certain degree of the automatic in all these adjustments, the higher we go in the scale, we can easily note a greater degree of independence of action, a greater degree of choice in mating, a greater degree of individual judgment, decision and reason in all of the complex adjustments and adaptations of the animal life. When we come to the human species, we find the element of choice and the play of reason, judgment, and of individual temperament reaching its highest manifestation. But still, with all that, we notice the instinct of mating, the instinct of home-build-

ing, the instinct of reproduction or of bringing of young into being, the instinct on the part of the man to protect the woman, the instinct on the part of both parents to protect the young. The extent to which the man will sacrifice his personal comfort for the comfort and safety of the woman goes far beyond any limits reached by the lower animals. The limit to which father and mother will sacrifice themselves for their children, in the human species, is far beyond that reached by any of the lower animals.

Far back in human history, there is no question but that the human species was gregarious, and that the strongest men of a tribe, the greatest fighters of the clan, fathered the children, while the weaker men were pushed aside and perhaps even castrated and made hewers of wood and carriers of water—practically enslaved.

During later millenniums of human development, even in the most advanced nations, say during the last three or four thousand years, there has been a distinct advance in development from the gregarious and polygamous to monogamous mating, where one man courts and wins one woman for his wife, and becomes mated to her for life in the relation of marriage or matrimony. This monogamous mating, or mating of one man to one woman for life, has been generally recognized as of so important a nature for man's highest development that it has received not only the sanction and blessing of religious leaders of those advanced races, but it has become interwoven in the very fabric of religious rite and ceremony, of political law and order, of social custom and sanction, so that, to overstep this law of advanced society, brings down upon the offending member the heavy hand of the law, the ostracism of society, and the anathema of the church. This being so recent a condition in human society easily accounts for the fact that now and then men and women, from some

unbalancing of temperament, revert to the instincts of long ago; and so we find a tendency on the part of some to transgress this law of society and fail to live in fidelity to the monogamous union.

Summarizing these facts regarding animal instincts, we may say that they are clearly divided into two distinct groups; first, those instincts directed towards self-preservation; second, those instincts directed towards the preservation of the race.

The first group are called the egoistic instincts, and the activities which result from these instincts are called the *egoistic activities* of life.

The second group, those directed towards the maintenance of a species, being activities for others rather than for self, are called the altruistic (from *altera*, others), and the activities which grow out of the altruistic instincts are called the *altruistic activities*.

As we study these wonderful instincts and natural impulses that have been implanted in the lives, not only of men, but of all animals, we are conscious of the infinite wisdom of the Creator of all life. But for this instinct of reproduction, we can easily understand that those lower animals, in whom there seems to be no particular deep-seated affection between mates, and no consciousness of the sex act, would cease to engage in this act of reproduction, and their species would become extinct. It becomes evident, then, that the whole preservation of the species, in all the lower animals at any rate, depends upon this indelibly-planted instinct of reproduction.

In recent times, as men have studied these problems of society, they have become convinced that the race is more important than the individual. In fact, it is even stronger than that, in a statement of modern science. The

individual is important only in so far as he influences the race and assists in the maintaining of the race. After all, it is the race that is the important thing; and we find that the individual is now accounted as having not more than secondary importance at the best.

When we consider that far-reaching importance to the race of this instinct of reproduction and all production of young, we are prepared to find that Mother Nature very jealously guards this reproductive power, and lays a heavy hand of retribution upon any animal that, feeling some perverted tendency, departs from Nature's law and fails to regard as sacred these instincts and activities which are concerned in the maintenance of the race.

CHAPTER II

DEVELOPMENT FROM YOUTH INTO MANHOOD

As we study the development of individual animals, we discover it to be a general law of development, that, at a certain time in the history of each animal, it goes through a short ripening period. During this period, it develops physically the characteristics typical of the adults of its species, and so comes into adulthood. We call this period of development adolescence. In the plan of Nature, it is clearly a period during which the reproductive powers of the individual are matured.

In the mammalian female, the uterus (womb) develops to its full size, and the mammary glands enlarge. In the space of a few weeks or months, or, in those animals of longest lives, a couple of years, the young female takes on those physical characteristics typical of the females of its species that are bearing young.

Similarly, the mammalian male develops during his period of adolescence those characteristics typical of the male of his species. The male among mammals being, as a rule, much the larger of the two animals, and equipped with an armament for fighting, we are prepared to find that this fighting equipment is added to the male during his adolescent period. The fangs of the carnivorous animals get heavier and stronger, the horns of the bull, the antlers of the elk, the prongs of the antelope, all get heavier

and sharper during the adolescent period. The male sexual glands, the testicles, also increase in volume about eight-fold, that is, the testicles become twice as long, twice as wide and twice as thick, thus multiplying their volume eight-fold. Marks, distinguishing male from female, as the mane of the lion and the bison, become more luxuriant.

Similar changes take place in the adolescent development of birds; the female bird developing ovary and oviduct, and assuming her modest plumage, and demurely comporting herself, while the male assumes his gay plumage, cultivates his winning song, and sharpens his fighting spurs during his period of adolescence.

In animals lower in rank than birds and mammals, the adolescent period is much less clearly marked.

Adolescence in man. The period of a young man's life from about fifteen to about twenty-five years, when he is growing from boyhood to mature adult life, is called the period of adolescence. The period of adolescence is ushered in by a series of physical and mental changes which make a well-defined initial period or first step into manhood, which we call *puberty*. The period of puberty is two or three years, and in the average case among American boys it is the period from the fifteenth to the seventeenth year, and is complete when the youth can produce fertile semen capable of fertilizing the human ovum. While the average age of puberty is from fifteen to seventeen, we find that in the boys from the Latin races, the period of puberty is much earlier, and may begin as early as the twelfth or thirteenth year. As a rule, when the age of puberty begins so early, it is more likely to be protracted over a period of three years; on the other hand, it may begin as late as the seventeenth year in the boys of northern Europe, as for example, the boys of the Scandinavian Peninsula or Finland. In most States, the law recognizes about the seven-

teenth year as the period when the boy is to be held responsible for acts of procreation.

It is now universally recognized, however, that when the youth reaches this point in his development, that is, reaches a stage of development where he is able to procreate his kind, while he may be called a man, he represents manhood in its lowest form. He has not reached the stage of physical or mental development and maturity which justifies him in undertaking the responsibilities that are involved in parenthood. It requires in the average case a period of six or seven years more to develop the young man to the full stature of adult manhood, possessing his full physical and mental powers, and the strength required of one who may assume the responsibilities of parenthood. So that, at the age of twenty-three to twenty-five, in the average case, the young man may be said to have reached this period of complete development, and to have finished his adolescent period. At that age the young man should be sufficiently mature, and sufficiently well started in his life work, so that he may begin home-building. Moreover, we may say, in all frankness, that, as a rule, it would be better for a young man to establish a home and take to himself a wife not later than his twenty-fifth year. Most young men would find it necessary to live very simply and frugally if they married so young; but simple and frugal living is better, both for the young man and for his young wife. And as they look back upon these years of their young married life, it is a very common experience to feel that they were the happiest years of their lives, even though they may have been years of simple, frugal living.

We may profitably now consider more in detail some of the changes incident to this most important period.

PHYSICAL CHANGES. The human being belongs to the mammals, as stated above; and, as a member of that class,

he possesses over the surface of the body, excepting the palms of the hands and the soles of the feet, hair follicles, which produce the hairy covering typical of mammals. A careful study of the distribution of the hair on the surface of the human body, comparing it with that of the higher apes, shows that this distribution is identical, and that the "lay" of the hair in any one region of the human body corresponds exactly with that of the same region in the body of the ape. For example, the hair of the forearm points outward and upward, and on the upper arm downward, and so on throughout the man and ape-like types. Every child comes into the world with a coat of rudimentary hair, which is shed at once. Aside from the growth of hair on the head, including the brow and the lashes, the skin is quite free from any noticeable growth of hair for months or even years. Beginning at the age of puberty, however, the growth of hair is very much increased over the whole surface of the body, particularly upon the face, in the arm-pits and over the pubic region. It is a generally recognized law of biology, that at the period of sexual development the hairy mammalian character becomes accentuated. The increase in the growth of hair at this time can have only one interpretation, namely, that the ancestors of man represented, to a very much larger degree, this character of the hairy covering, than is the case with man at the present time. It is interesting to note, in this connection, the almost universal attempt of man to rid the face of this hairy growth by various devices, from pulling to shaving it off. The origin of this custom of removing the hair from the face probably dates back to the remote past. It has been observed as a custom among both savages and civilized peoples.

In all animals the voice plays an important part in the sexual and social relations. In many animals the voice

seems to have almost no other function than as a sex call or as a means of communication between mates or between parents and young. The human subject shows this general principle in the profound changes which the voice undergoes at the time of puberty. These changes in the male consist in increasing the depth of the larynx, thereby increasing the length of the vocal cords, which, in turn, modifies the pitch of the voice, usually lowering it by almost an octave, and making it not only lower, but much more pleasant in quality and greatly increased in volume. As a rule, boys who sing in the church choirs have either a high-pitched treble voice or a mellow alto voice. When they come to the age of puberty, there is a period of a year or eighteen months, during which they lose the power to control the pitch of the voice. Boys who have been singing in a choir have to withdraw from that activity for a time "until the voice becomes settled," when they usually find that the high-pitched treble has changed into the clear ringing tenor of manhood, while the mellow alto has been transformed into the deep sonorous bass of manhood. There are, however, many exceptions to this general rule, and we not infrequently find that the man who had a treble voice in boyhood may have a bass voice in manhood.

Of incalculably greater importance than the changes described above, though perhaps less noticeable to the casual observer, are those physical changes which the boy undergoes during the first half of the period of adolescence. We refer to the growth of bone, of muscle and of those internal organs concerned. We refer here to the digestive organs, the heart and the lungs. The first step in these profound physical changes is a rapid growth in height that makes itself manifest about the fifteenth year. It is not at all unusual for a boy to grow from four to six inches in a

year. This increase in height is very largely due to a lengthening of the thigh and leg bones. At the same time that this increase in height is going on, there is a proportional increase in the reach of the arm. This is brought about by the increase in the length of the arm bones, corresponding to the leg bones. So the boy outgrows his clothes, his coat-sleeves are drawn up half-way to his elbows, and his trousers half-way to his knees. The muscles scarcely keep pace with the bones in their growth, and continue to be flabby, and lack the usual hardness and tonicity. It is difficult for the youth to hold his back straight and to hold his shoulders back. He is awkward and ungainly in his movements, and becomes easily fatigued because of the condition of the muscles. At this period in the youth's development, it is very unwise for him to take an active part in such strenuous athletic feats as sprinting races, and the more strenuous games, as football. Nature seems to provide against over-exertion at this period of the boy's development, because most boys pass through a period of inherent and instinctive laziness. This seems to be Nature's way of insuring them against over-work. Parents and teachers must be very patient with the boys at this time, and not expect too much of them. On the other hand, by the time a boy reaches his seventeenth year, he should have reached an age of muscular development when strenuous exercise is distinctly beneficial. As a rule, boys emerge from their constitutional laziness about this period, and their athletic ambitions lead them into the most vigorous physical life. If parents and teachers see a tendency on the part of the boy to prolong his period of laziness beyond his seventeenth year, every effort should be made to stimulate him to get into the games and to join in the strenuous physical activities typical of the next stage of his development. We see in the seventeen-year-old boy,

then, a great increase in the bulk and in the hardness of the muscles. They fill out arms, legs and back, shoulders and chest, with large masses of firm muscle tissue. The growth of these muscle masses changes the dimensions of the youth, and he fills out in girths then as rapidly as in the previous period he increases in length measurements.

All of this increased activity can only be accomplished by increase in activity of all the nutritive processes. The appetite is practically insatiable. The boy can eat three square meals a day, and lunches between meals. If he wakes up in the night, he is hungry. To accomplish the digestion and absorption of this great bulk of food, the digestive canal throughout, and particularly the stomach, is greatly increased in size.

This increased activity of the digestive canal makes a greatly increased flow of blood, with the accompanying necessity for a larger and stronger heart to force the blood through the arteries and veins.

With increased bulk of muscle and increased quantity of food, we have increased oxidation of the tissues. This requires increased respiration, which demand is satisfied by rapid development of the lungs. The chest increases in dimensions in all directions, and becomes deeper and broader and longer. Not only does the chest become more capacious, but also more mobile and more responsive to the varying requirements of the system.

If we are interested in the biology of all these changes, we need not go far to discover the natural causes at work to produce them. *Nature is preparing in the youth a home builder.* It is preparing an individual who can support and protect not only himself, but also a family. This equipment in the case of primitive man, away back in human history, must necessarily have been one of bone and brawn. While under the conditions of modern

society, the necessity for bone and brawn is somewhat less marked, the plan of Nature is no less evident and no less interesting.

During this age of puberty, the growth of the sex organs is no less marked than the growth of the body in general. The development of the sex organs is much more striking, and the metamorphosis much more complete. We can easily understand this, because the period of puberty is really a period of the maturing of the sex organs—of the reproductive system. As mentioned above, the copulative organ of the male becomes at least twice as large in all of its dimensions, that is twice as long, twice as broad and twice as thick, thus increasing its bulk at least eight-fold. The testicles also, as mentioned above, are increased at least eight-fold. And the scrotum or sack which holds the testicles, probably because of the increased weight of the testicles, is lengthened. The testicles develop the power, during this period of puberty, of forming perfect semen, capable of fertilizing the human ovum. When these organs thus become capable of procreation, the period of puberty is complete.

In this connection it is important to note that the development of the testicles produces a profound effect upon both the physical and the mental characteristics of the young man. The effect is produced through a substance which is absorbed into the blood and lymph, and is thus distributed throughout the body, where it exercises its mysterious and profound influence. Just how this affects the mind and body will be discussed in detail in a subsequent chapter.

PSYCHICAL CHANGES. Most of the higher animals, particularly man, and all races of men, devote a large part of the energies of the adolescent period to sports or games in which individuals contend with each other or teams of

individuals contend with opposing teams in games that bring into play the various powers of brawn and brain, such as alertness of all the senses, readiness and correctness of judgment, agility, speed and strength of movement. Sport might be criticized by some because it represents a non-productive expenditure of energy. On the other hand, no energy ever expended by man is so highly productive of so precious a material as results from the many athletic sports. The products of these games are the substances consumed by them, unreasonable as that might at first appear. The use of brain, muscle and glands, and the consumption of the substance of these tissues, result in the development of brain, muscle and glands into a condition larger and better equipped and more responsive than before such use.

Thus, athletic sports, while they make drafts upon the nerves, muscles and glands, develop all these tissues to a high degree of efficiency. The plan of Nature in this instinctive indulgence in sports must be evident. Nature is educating and developing the male animal (man) to the highest possible degree of efficiency; so that sports, instead of being non-productive, lead to the development of structures possessing a high value, not only to the individual, but also to society. Furthermore, those qualities of mind that are encouraged on the athletic field between contestants in the game are the qualities that in the later serious struggles of life make the most for success.

Hardly less important than the office of sports is that of productive employment for adolescent youths. That the adolescent youth should not be asked to perform tasks that overtax his physical or mental powers goes without saying; nor should he be asked to perform tasks that consume so much of his time that he is unable to take an active part with his fellows in field sports; for experience

shows that the youth undergoes a more wholesome development if he takes some active part in a productive employment, than if allowed to devote all of his energies to play. The simple fact that he is held responsible for some duty in the home, or the shop, develops in the youth not only a knowledge of how to do things, and a sympathy with the adults who are devoting their strength largely to similar tasks, but, more important than either of these considerations, these tasks develop in the youth an ability to accomplish properly and efficiently some piece of work as a duty, to do it regularly and promptly because it is a duty, without any reference to a personal enjoyment of the task. If this important lesson in life is learned during the early adolescent period, it will make the path of life much less rugged than some seem to find it.

Incident to the activities of the athletic field, the youth is brought into more or less intimate contact with fellows of his kind, both of the same and of the opposite sex. While the boy of ten to fifteen delights in the forming of cliques, gangs and crowds, the boy of seventeen delights equally in widening his circle of acquaintances. The athletic contest gives him an opportunity not only to measure his powers with those of other young men, but also to win the respect as well as admiration of his young lady acquaintances. There is no doubt but that the approbation of his young lady friends for his prowess and strength, as manifested in sports, serves as a strong factor in the stimulating of athletic contests, and in bringing the sexes together in a purely social capacity.

Psychic phenomena, in both the male and female, have been well characterized by the German expression, "Sturm and Drang," whose English equivalent is storm and stress. So we must recognize that there is a general breaking up of old relations and instincts in the mind of the youth, and

their gradual displacement by new thoughts, desires and instincts.

In the light of what has been recently discovered by scientists, we may expect to find in these adolescent boys and girls a love of Nature, a restiveness under restraint, a tendency to vacillation between extremes of emotion. One day, ambitious; the next day, discouraged; one day, brilliant and happy; the next day, despondent and depressed; one day, too good to live; the next day, too bad to die. The rapid change from one of these mental attitudes to the other makes it very difficult for parents, teachers or other leaders and associates, either to understand or to sympathize with their mental state. The mental quality most needed by parents, teachers and other guardians of youth, is patience; and this must be possessed in infinite quantities.

In the case of boys, at least, the problem may be immensely simplified, if they can be, at least for months at a time, brought very close to Nature. If there is any possibility of arranging it, every boy should have the benefit of several weeks of camping in the woods and by the water. Improvised camps, caves constructed in the bluff side, lodges built in trees, appeal to the boy in an indefinable way, and seem to put him in harmony with Nature. A considerable amount of time may well be spent in fishing and hunting, constructing rafts and simple boats. Such opportunities develop the heroic side of the boy's mind, and develop the massive, sturdy powers of his body.

It goes without saying that every boy's camp should have at least one, perhaps several, older young men of irreproachable character, monumental patience, phenomenal tact, and herculean strength to serve as leaders of the boys, and to inspire them in all the activities of the camp. Such a leader, or group of leaders, will use the

opportunity afforded by the evening camp-fire, when all "the braves of the tribe" gather close in around the glowing embers, and as far as possible from the disquieting shades of the forest, to tell stories of the heroes of the olden times, and to inspire in the boys, by word pictures of heroes, a high ideal of manhood.

These psychic phenomena, set forth in some detail as to the boy, but similar in many respects as to the girl, are so indissolubly associated with the sex life, that any discussion of the sex phenomena of this period, without mentioning these phenomena, would be incomplete. One of the most noticeable psychic changes of the period is the change of attitude towards the opposite sex. The pre-adolescent youth not only gives little heed to the opposite sex, but, as a matter of fact, rather despises them. However, as the months go by, the youth, who has entered upon his or her adolescent development, will begin to evince a change of attitude towards the opposite sex. There is a marked tendency on the part of girls and boys of thirteen to fifteen to play games that involve the choosing of partners, the chasing of the chosen one, the chase ending in the capture, and perhaps even of the kissing, of the object of the chase. The psychology of these games is interesting. Note that the partner chosen in these games is supposed to be surprised at the choice, and runs away and apparently makes every effort to avoid capture. When the object of the chase is a coy maiden of thirteen, this show of running away to avoid capture covers up any embarrassment; and if she is finally caught, and even kissed by the fortunate youth, it is all taken as a part of the game, and the maid rather glories in the agility and strength of the youth who is able to catch her. Of course, it goes without saying that the girl really, down in her heart, enjoys the whole procedure, though she may feign

to be annoyed or even scandalized that the boy should take advantage of her capture by planting a resounding smack on her glowing cheek. It is not at all difficult to perceive, in these choosing games of early youth, a mock social encounter that sustains, to the real society of the adult, a relation similar to that which the sham battle sustains to the life and death encounter of the armed forces of nations.

Another stage in youthful society is dancing. In the physical and mental conditions of the dance, we have the partner-choosing games of youth, modified in such a way as to bring them into harmony with the gradually unfolding modesty and sedateness of young womanhood, on the one hand, and the gradually developing chivalry of young manhood, on the other hand.

In the dance, the same frequent and shifting choice of partners is noted as occurs in the partner-choosing games. The physical activity involved in the chase here takes the form of a hardly less vigorous chase of the rhythmic measures of the music. The element of contention, however, is furnished in the repartee of conversation, rather than in physical contests. In place of the stolen kiss, the dance affords a close physical contact, almost if not quite an embrace, which sustains to the developing sex love a relation similar to that which the kiss bore at the earlier period.

In passing, the writer wishes to take the opportunity to assure the reader that nothing in the above paragraph is to be interpreted as indicating that he believes the modern dance, as it is usually conducted, frequently with no chaperonage or safeguards, to be a wise or admissible exercise for young people. The folk dances of the peasant people of Europe, and similar dances enjoyed by our great-grandparents in the pioneer days of America, are widely different in their social significance and influence from the

modern round dance, with the unspeakable "Turkey-trots" and "Bunny-hugs."

While in his social relations, the young man is seeking points of tangency with those in his own plane, in his religious experience he seeks to come into relation with his Creator, that is, with the power that exists in the plane above his own. In the researches of Coe and Starbuck, made several years ago, they discovered the following truth, and demonstrated it as a general principle: First, a vast majority of professing Christians acknowledged their allegiance to God during the early part of the adolescent period. Second, a vanishingly small percentage of professing Christians become so after the age of twenty-five.

CHAPTER III

ANATOMY AND PHYSIOLOGY OF THE MALE SEXUAL ORGANS

THE sexual organs of the human male consist of the penis and the scrotum, the latter containing the testicles. The penis of the young man who has completed the stage of puberty, consists of two erectile bodies which contain numerous blood channels, which, when filled, will cause the organ to erect. These two erectile bodies lie side by side and make up the main body of the organ. Just between and underneath these two cylindrical erectile bodies, lies the urethra, a tube which leads from the urinary bladder to the end of the penis. Around the urethra is a small amount of connective tissue, which leads the structure to be called the spongy body, though it is, principally, simply the tubular urethra. These structures just described are sheathed in loose connective tissue outside of which is the skin. About one inch of the lower end of the penis is formed into a sort of head which is called the *glans*, over which, in the young child, the skin is double folded and called the *prepuce* or the *foreskin*. The glans or head is covered by mucous membrane, which is folded back above the glans in such a way as to line the inner surface of the foreskin. The mucous membrane which covers the glans is red, thin and moist, and possesses numerous nerve endings. The prepuce, as stated above, usually covers the

glans in the young boys and may do so throughout life. It is sometimes adherent to the glans. This condition is abnormal, and as soon as it is discovered, the adhesions should be broken up by a physician.

The normal prepuce or foreskin of the adolescent male should be free from the glans, and should be sufficiently loose, easily to retract back of the glans; a position it is likely to take when the organ is erected. If the prepuce should extend half an inch or more beyond the glans penis, as a little flap of skin, or if it is constricted at the opening so that it is difficult to draw it back of the glans or to replace it when once it is back of the glans, the condition is not normal, and should have the attention of a competent surgeon.

One can easily understand the need of a prepuce in the case of primeval man, who was practically unprotected by clothing, but in the present condition of civilized races, the foreskin is certainly an unnecessary appendage, and there are several good reasons why it should be removed. This operation, called *circumcision*, is not to be looked upon as a mutilation, but simply a hygienic measure, made advisable, if not necessary, by the unnatural conditions under which we are now living.

Beneath the foreskin, cheesy secretions, produced by the glands at the back of the head of the penis, collect; and if the organ is not frequently cleansed, these accumulated secretions may act as an irritant. Such local irritation is one of the most prevalent causes of self-abuse in boys.

The removal of the foreskin in young children is an exceedingly simple operation, and is not by any means difficult or dangerous in the adult. If the prepuce is removed, the organ will need no especial care, as contact with the clothing will remove the secretions as they appear. Furthermore, the glans penis becomes less sensitive, and

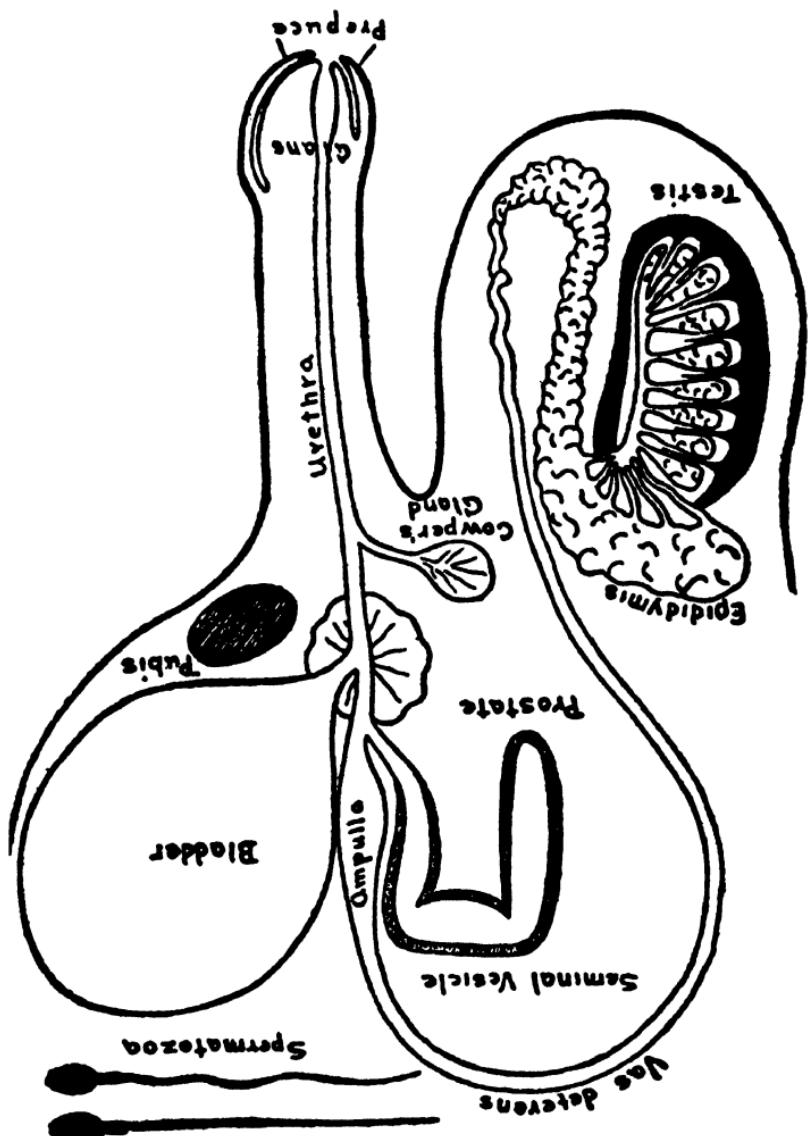
therefore less subject to local irritation, thus greatly simplifying the young man's problem in sexual hygiene.

The *penis* in its relaxed state varies considerably in size, due not only to varying conditions of temperature, but also to individual peculiarities. The organ may vary between two and one-half inches and six inches in length in the relaxed state, and between five inches and eight inches in the erect condition. The size of the genital organs is not an index of virility in the male.

The *testicles* are the male genital glands, and are described as about one and a half inches in length, one and a fourth inches in width and nearly one inch in thickness. The testicles are contained within a sack, which is called the scrotum. The outside coat of this sack is a thin wrinkled skin within which are four thin coats. These several coats taken together make a rather thick-walled sack. Next to the testicles and surrounding the spermatic cord is a thin covering which is carried down into the scrotum when the testicle leaves the abdomen where it is formed.

This *descent* of the testicles, from the abdominal cavity, takes place usually in the latter weeks of inter-uterine life, that is, just before birth. The testicles, however, through some unusual condition, may be retained in the abdomen and make their descent months or even years later. If the testicles have not descended by the beginning of puberty, the advice of a competent surgeon should be sought. It is not at all an uncommon thing for a young man to have one testicle in his scrotum while the other testicle has been retained somewhere along the groin canal, where it may be felt as a movable lump, and usually somewhat smaller than the other testicle. Sometimes a simple surgical operation will open the lower end of the groin canal in such a way that the testicle will then slip easily down into the

Male Sexual Apparatus



scrotum. In any case, the surgeon, when he examines the condition of the tissues, will be able to decide what is best to do.

If the testicle of any male animal were sliced through with a sharp knife, it would be found to consist of many lobes. These lobes are all conical in shape, with the bases reaching to the outer coat of the testicles, while the apices point up towards the *epididymis*. Reference to the accompanying figure will show this lobular structure of the testicle as well as the other structures that we have already described. Note that each lobe, as shown in the figure, has a thin walled tubule leading up into the epididymis. As soon as the tubules reach the epididymis, they are thrown into a sort of tortuous tangle, among whose meshes the thin-walled *blood vessels* are intermeshed.

Within the lobules, in the rounded left-hand ends in the figure, the *spermatozoa* are formed by a complex process of cell division and cell generation, which process is called spermatogenesis. The sperm cells, or spermatozoa, are wonderful structures shown at the top of the figure marked "spermatozoa." These sperm cells or spermatozoa consist of a nucleated head, a neck and a tail. The head constitutes one-eighth or one-tenth of the body-length. The neck piece is shorter than the head. The tail or flagellum possesses the power of making strong lashing movements, and constitutes the locomotor organ of the sperm cell. When a fresh sperm cell rests upon a moist membrane, these lashing movements carry it over the surface of the membrane, as do similar movements of a snake carrying it over the surface of the ground.

The *epididymis* referred to above, consists of a mass of coil tubes and blood vessels. After the secretion from the lobes of the testicles passes through the tortuous coils of ciliated tubes of the epididymis, it is collected into a single

tube called the *vas deferens*, which passes as a part of the spermatic cord from the scrotum up through the groin canal and over the public arch into the pelvic cavity, where it makes a wide, sweeping turn and comes down back of the bladder, where it is dilated into a sack-like structure called the *ampulla*, beyond, each duct is again contracted into a narrow tube, and the two ducts, one from either side, converge and pass through the prostate gland, where they empty into the urethra.

The *seminal vesicles* are small, bladder-like organs, supposed originally to contain the secreted semen collected from the testicles. There are two of these vesicles from each of which a duct joins the *vas deferens*, making what is known as the *ejaculatory duct*. The two ejaculatory ducts, coming together in the prostate gland, open into the urethra, as stated above. The seminal vesicles possess glandular walls and secrete the substance which they contain. *A small part only of the sperm from the testicles normally finds its way into the vesicles, these being mostly filled with their distinctive secretion.*

The *prostate gland* is situated around the neck of the bladder, and is traversed, not only by the urethra from the urinary bladder, but also by the ejaculatory ducts. There are numerous fine thread-like gland ducts which open from the substance of the prostate gland directly into the urethra.

Just beyond the prostate gland are two small glands, called the *Cowper's glands*, whose ducts empty into the urethra some distance beyond the prostate, and just at the root of the penis.

THE PHYSIOLOGY OF THE MALE SEX ORGANS

Thus far this chapter has been devoted to a description of the structure of the male sex organs, but nothing has been said regarding the function of these organs. Let us now devote a little time to a minute description of the function of these various parts described above.

The *urethra* has been referred to several times as the main canal or tube of the penis. It is important, in considering the physiology of the urethra, to remember that it has not only a double function to perform, but that the performance of one function, in a measure, temporarily unfits it for the performance of the other, and makes it necessary that a special measure of preparation be devised by Nature. The urinary secretion from the kidneys, collecting in the urinary bladder, is passed out periodically through the urethra. This same channel must transmit periodically secretions from the sex apparatus.

Cowper's Glands secrete a clear, alkaline mucus, very slippery and mucilagenous in consistency, and in appearance like the white of an egg. This secretion to the amount of six to twelve drops is poured from the Cowper's glands into the urethra whenever there is a sexual excitement sufficient to cause a sustained erection of the penis.

The purpose served by this alkaline mucus is a very important one, and it is important that every young man should understand it. It will be remembered that the male urethra affords passage, not only for the urine, but also for the generative fluid or semen. The urine is acid in reaction, and the frequent passage of urine along the urethra leaves that duct acid in reaction for a time after each urination. Spermatozoa are very sensitive to acid, and their vitality is seriously impaired by acid of any kind.

Nature has provided that the secretion from Cowper's glands should precede the generative products of semen along the urethra, thus neutralizing the acid, and insuring for the spermatozoa an alkaline passage from the body. Besides this important function of the secretion from Cowper's glands, the slimy and transparent mucus appearing, drop by drop, at the opening of the urethra and spreading over the end of the penis, serves as a natural lubricant, covering the glands of the male organ. It must not be forgotten in this connection that this secretion appears only under strong sexual excitement, accompanied by erection. In Nature's general plan, evidently, it is assumed that sexual excitement and erection is to be followed by sexual intercourse, and this lubricant aids in the sexual intercourse. A secretion from the female similarly prepares her organs for sexual contact, so that the delicate mucous membrane of the female organs shall not suffer by the contact.

Many young men who have noticed the slimy secretion from Cowper's glands have wholly misunderstood its nature and have feared that they were losing a vital fluid. This misunderstanding of the nature of this fluid makes the young man especially subject to the misrepresentations of the advertising quacks and charlatans, who are likely to tell him that he is "losing a vital fluid," and that he "will, if not treated, lapse into a condition of general debility and lose all procreative power." This brief explanation of the significance of the secretion from Cowper's glands will protect the young man from any such misrepresentations.

Let us remember, then, that these glands secrete mucus under the influence of strong sexual excitement; that this mucus looks like the white of an egg, but contains no albumen; and several drops of it may come out of the

urethra after the excitement has subsided and the erection gone down.

The *prostate gland* is intimately associated with reproduction. This is made evident from the fact that in those male animals that have suffered castration before puberty, the prostate gland withers and practically disappears. What, then, is the rôle that this gland plays? Like Cowper's gland, it secretes only during sexual excitement. Under such excitement, its ducts become gorged with the secretion peculiar to it, and at the moment of emission of the semen, the numerous ducts of the prostate empty their contents into the urethra to be mingled with and made a part of the semen. The secretion of the prostate is composed of a watery solution of albuminous substances, and of alkaline salts, closely similar to the substance produced in the seminal vesicles. In the plan of Nature it is evident that this secretion from the prostate gland is intended to supplement the secretion from the seminal vesicles and to serve the same purpose as that secretion.

The *seminal vesicles* secrete continuously without any special relation to sexual excitement. The secretion is composed of a watery solution of albuminous substances, and of alkaline salts, practically identical with that prepared by the prostate gland, as mentioned above. This secretion, together with that from the prostate gland, is poured into the urethra at the moment of sexual orgasm. These secretions become mixed, in their transit through the urethra, with the secretion from the testicles. This mixture is known as *semen*. In composition, *the semen is a mixture of secretion from three sources, testicles, seminal vesicles and prostate*. It will be described in some detail after we have considered the function of the testicles.

It used to be supposed that the semen was secreted wholly by the testicles, and that the testicles were secreting

continuously and pouring the semen along the vasa deferentia into the seminal vesicles, which act as small receptacles for the gradually accumulating semen from the testicles; but the researches of Steinach, and others, have shown that the old theory is untenable, and these investigators have demonstrated that the semen is a mixture from three different sources, and that *the testicles secrete their contribution to the semen only during sexual excitement and sexual stimulation, as is also the case with the prostate gland, while the seminal vesicles secrete their product continuously.*

Because of this continuous secretion from the walls of the seminal vesicles, they become periodically filled and distended like little bladders. These little bladder-like organs are each about as large as one's little finger, though capable of great distension. They lie at the back of the bladder. Let us inquire regarding the function of this alkaline, albuminous secretion from the vesicles and prostate. For what purpose does Nature prepare such a substance? The spermatozoa frequently remain several days in the organs of the female before the ovum or egg is found and fertilized. During these several days, the spermatozoa are exerting no small amount of energy in their vigorous flagellate movements. For such an expenditure of energy, they must receive nourishment and stimulation; the nourishment is supplied by the albumen and proteins of the vesicular and prostatic secretions. The stimulation is supplied by the alkaline salts, also secreted by this gland. The researches of Loeb, and others, have demonstrated the importance of mineral salts in stimulating the activity of living cells. One can cite no better example of this stimulating action than the influence of these vesicular and prostatic salts upon the activity of the spermatozoa. The vesicles and prostate may be looked upon as a commissariat

of the army of spermatozoa; the vesicles accumulating a stock of supplies to be drawn upon at short notice; the prostate representing a factory where a considerable quantity of supplies can be prepared at short notice.

The periodic distension of the seminal vesicles is a matter of very considerable hygienic importance, and must be thoroughly understood by every young man who would lead a normal, sexual life. These organs, in common with all other organs of the body, are supplied with two sets of nerves, one set passing away to the spinal cord, and carrying messages which indicate the condition of the organ or the presence and character of any local stimulus; the other set passing away from the spinal cord to the organ and carrying secretory or motor impulses, some of the nerve fibres carrying one sort of impulse and some the other. The secretory impulses are more or less continuous, and as a result these glands secrete continuously and become distended as described above. The motor impulses pass to the muscles within the walls of the vesicles, causing a strong, spasmodic contraction of those muscles at the moment of emission of semen, thus throwing the contents of the vesicles into the urethra at the same moment when the epididymis and vas deferens, the ampulla and the ducts of the prostate, are emptying their contents also into the urethra. Now, the sensory nerves, passing from the seminal vesicles up to the *erection and emission centres* of the spinal cord, are stimulated by an unusual pressure within the vesicles (See plate I). Unusual pressure may be caused either by distension, due to accumulated secretion, or by pressure upon the vesicles from over-distended rectum or bladder. It sometimes happens that two or more of these influences are acting at the same time. These impulses are most likely to be effective when the person is asleep, and particularly if he is lying upon his back. The

result of this stimulus is to cause an erection, accompanied usually by an erotic dream, the whole phenomenon culminating in an emission of the contents of the seminal vesicles, followed, of course, by a relief of the pressure which was the cause of the condition. This phenomenon is technically called a "*nocturnal emission*." In common parlance, many men, however, refer to it as "pollution," a "dreaming off" or a "wet dream." Vecki, of Vienna, a specialist in physiology, hygiene and pathology of the sex apparatus, says that *the nocturnal emission is a normal physiological phenomenon*, the object of which is to relieve pressure in the seminal vesicles, and that in normal cases it occurs in fairly regular periods, these periods varying in length with different individuals, according to their physical condition and habits; the period being from two to four weeks, usually, although a considerable longer or shorter period would not be looked upon as pathological. Vecki describes the normal nocturnal emission as being "*accompanied by an erection, erotic dreams and an orgasm, the subject being wholly unconscious of the condition until he is awakened at the moment of orgasm.*" Normally, the subject experiences, on the following day, a feeling of relief and well-being, and should normally be wholly free from headache, depression or languor. Inquiry among a large number of normal, healthy men convinces the author that it is not at all unusual for these emissions to occur as infrequently as once in two months in a normal, healthy man. On the other hand, it is not unusual for them to occur as frequently as once in ten days, or even once a week, and still be within the physiological limit; however, when the emission occurs as frequently as once a week, it should be looked upon as abnormal, if it is followed by depression, headache or lassitude. Cases are not unusual in which the nocturnal emission is experienced as often

as three times in a week, after which there will be a period of two to four weeks without an emission, followed again by very frequent emissions and a free period.

This phenomenon is an individual peculiarity, and it is not to be looked upon as abnormal; at any rate, it is not to be looked upon as showing a diseased or weakened condition, but simply as an idiosyncrasy. Another variation of these emissions is a substitution of the *diurnal emission* for the nocturnal emission. This is the experience of about one man in ten, who have no nocturnal emission whatsoever; but about once in ten days or two weeks, on the occasion of a more or less difficult passage of the bowels, the subject will experience a sudden, more or less profuse flow of gelatinous liquid from the urethra; this is nothing more or less than the contents of the gorged seminal vesicles given out as a diurnal emission, instead of a nocturnal emission. As in the variation cited above, this is an individual peculiarity or idiosyncrasy, and has no suggestion of disease or weakness connected with it. Still another variation from the average experience of a man is to be found in the case of an occasional man—perhaps one man in ten—who has no nocturnal emissions at all, even when living a perfectly continent life. In many cases that have come to the writer's attention, this experience may easily be accounted for. The individuals in question, who had never experienced either nocturnal or diurnal emissions, were men of exceedingly abstemious and frugal habits, who not only ate and drank small quantities of food and beverage, but chose the plainest of foods and drinks, that were neither stimulating nor irritating. This fact, together with the frugal, simple life, may account for the fact that they did not experience nocturnal emissions. This condition is not to be looked upon at all as abnormal, but simply another individual peculiarity.

Cases of too frequent nocturnal emission accompanied by languor and headache are usually caused by irritability of or lack of tonicity of the sexual apparatus, particularly of the seminal vesicles and the ducts. This irritability or loss of tonicity is not infrequently caused by masturbation or self-abuse, though it may be caused by excessive sexual intercourse; making itself manifest naturally, in either case, on the cessation of the habit of self-abuse or the cessation of the habit of excessive sexual intercourse. Another cause of too frequent nocturnal emissions, and one that is wholly separate from any abuse of the sexual functions, is irritability and mechanical irritation of the sexual apparatus, perhaps especially of the membranous and prostatic portions of the urethra, caused apparently by the presence of the excessive amount of irritating substances in the urine, which substances occur in sharp angular crystals and would seem to be in a high degree irritating to the tender membrane of the upper part of the urethra. The almost invariable presence of these crystals, in excess in those cases that have not been accounted for by abuse of the sexual function, leads one to adopt the plausible theory that the crystals are the cause of the irritability; however, we must not lose sight of the fact that these crystals may be simply an accompaniment of the too frequent emissions, and that the presence of these salts in the urine may be caused by some disturbance of the nutritive process that go on in the body, which disturbances cause not only irritability of the sexual apparatus, but also the presence of crystals.

When the seminal vesicles are much distended, it occurs not infrequently that the passage of hard masses or fecal material through the rectum will, by simple mechanical pressure on the seminal vessels, force out a few drops, perhaps the whole contents of the vesicles. This would be called an "*involuntary emission*"; but the liquid

passing out must not be looked upon as semen; it is simply the secretion of the seminal vesicles; and, in losing it, one is not losing a vital fluid or a fluid any portion of which would be absorbed; he is simply losing a fluid which would, in the normal course of events, have passed away within the next few days in the nocturnal emission.

These details have been explained in order that the young man may fully understand the physiology of his sex apparatus, and not be disturbed by the advertisements or the pamphlet literature of charlatans and quacks who make a business of frightening young men into the belief that in these experiences they are "losing vital fluid"; that they are "victims of lost manhood," or that they are entering into a condition of "general debility and impotence." As an actual fact, involuntary loss of any considerable or serious amount of spermatozoa, a condition technically known as *spermatorrhoea*, is not found frequently, even in the practice of specialists in genito-urinary diseases; and, in these cases, the condition is usually a result of great excesses, of sexual debauchery, or it may be one of the results of venereal disease.

This question is frequently asked: "Are spermatozoa found in the fluid that passes away in the nocturnal emission?" The answer is: "Yes, usually."

In the above description of the nocturnal emission, we failed to state that the ampullæ contract along with the seminal vesicles at the time of the normal nocturnal emission. As shown above, the ampullæ contain spermatozoa, as do the vesicles to a small extent. The spermatozoa leave the testicles and pass out through the vas deferens whenever there is sexual excitement sufficient in degree to cause an erection of the penis. Now, if a young man experiences repeated seasons of sexual excitement, accompanied by repeated erections, it is evident that his ampullæ

will become filled with sperm cells or spermatozoa. When these sperm cells first come into the ampullæ fresh from the testicles, they are lashing their tails strongly from side to side. We call them nascent or new-born spermatozoa. In that condition they are capable of fertilizing the human ovum, if the conditions are favourable as in the perfectly natural sex life of the married man.

The male animal is supposed to experience extreme sex excitement with erection when in the presence of a female who is in the condition of heat. We may take, for example, the experience of a stallion. This magnificently virile animal apparently experiences sexual excitement only when in the presence of a mare in heat. He seems to know instinctively when the mare, into whose presence he is brought, is in heat. We can easily imagine that, under such circumstances, the horse's organ undergoes a strong erection, and spermatozoa by the million swarm out of the testicle, up through the vas deferens into the ampulla. At the climax of the sex excitement, which occurs during the sexual intercourse between the horse and mare, the orgasm occurs, during which the ampullæ and the seminal vesicles and prostate all pour their secretions into the urethra, where they are mixed together as they pass out to be deposited in the vagina of the female. Thus, we have the perfectly normal and natural sequence of events as they occur in the male sex apparatus.

Now, let us suppose that this stallion, after being subjected to extreme sexual excitement in the presence of the mare in heat, is led away and not permitted to have sexual intercourse with her. The spermatozoa that have gathered in the ampullæ in readiness to pass out, are retained there, while their food and the stimulation that is to keep them active are in the seminal vesicles, and they have access to this food and stimulation, only in so far

as they pass up into the seminal vesicles which they will do to a certain extent. But most of them remain in the ampullæ and gradually lose their vitality.

It is easy to understand that such spermatozoa, now weak and less strongly motile, are practically useless for fertilizing purposes, and if this stale semen were injected into the organs of the mare in heat, it would probably not cause pregnancy. For this reason, Nature gets rid of this stale semen by simply emptying out the ampullæ at the next nocturnal emission.

We can easily understand, then, how it happens that there are nearly always spermatozoa in the fluid that passes away in the nocturnal emission. They are simply spermatozoa which have passed up into the ampullæ, hours or days before, as a result of sexual excitement, and sustained erection. If a man exerts a restraining will-power sufficient to avoid all sexual excitement and erections, he will thus avoid the passage of spermatozoa from his testicles *into the ampullæ*, and secondly, avoid the loss of spermatozoa with nocturnal emissions. This interpretation of the physiology of this apparatus makes it evident that a man has it within his will-power to govern the loss of spermatozoa.

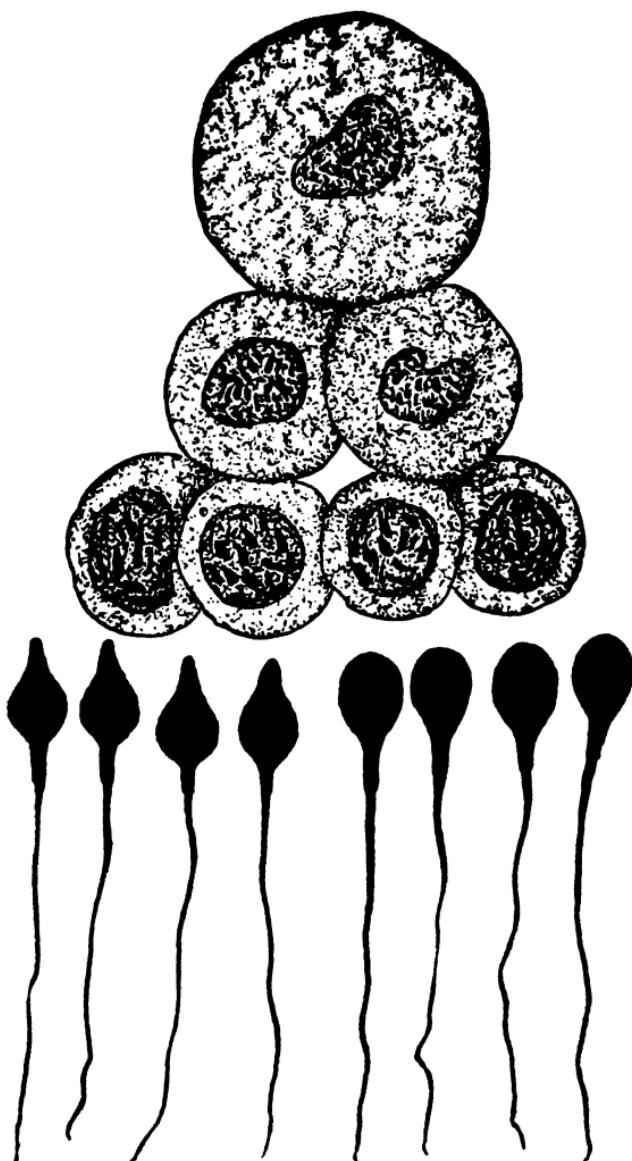
This question has been asked the writer on several occasions: Will an intense and continuous desire on the part of a young man for sexual intercourse cause the loss of seminal fluid? The answer is: An intense and continuous desire for sexual intercourse will in the man cause an active secretion on the part of the testicles, and will probably cause an increased secretion on the part of the seminal vesicles, also an active secretion on the part of the prostate gland and of Cowper's glands. The secretion from Cowper's glands will make its way along the urethra, and appear at the opening of that duct, passing out and

soiling the linen of the subject. The secretions accumulated from the other glands will tend rather to aggravate than to allay the sexual desires. Such a condition of the sexual apparatus is likely to cause a nocturnal emission in the near future, relieving this tension and emptying the gorged ducts. If the nocturnal emission does not occur within twenty-four hours, sexual desires are certain to occupy the waking hours more or less completely. If the nocturnal emission does occur, it will carry away, not alone the contents of the seminal vesicles, but also the spermatozoa and other constituents of the vital fluid. Seasons of prolonged and intense sexual excitement are in a high degree inimical to continence, and even though the subject does not fully submit to his inclination, his nocturnal emissions, which are likely to come frequently, carry away the product of the testicular secretion, thereby depleting, to a certain extent, his virility. It is hardly necessary to urge upon every man who would lead a continent life, the very great importance of resisting these onslaughts of sexual passion in their very incipiency.

Yet another question is not infrequently asked: Is the production of semen modified by the character of the food or by the state of the nutrition of the subject? In answer to that question the writer would say that the vesicular secretion is greatly modified by the character and quantity of the food; the secretion from the testicles (spermatic fluid) is only very slightly modified by the conditions of nutrition. This accounts for the fact that well-nourished men, who eat heavily, and especially those men who eat heartily of such rich foods as meat and eggs, are very likely to experience frequent nocturnal emissions when living continently.

Testicles. The testicles are the most important structures in the sex apparatus of the man. No rational

idea of the physiology of these glands can be given without laying down, as a fundamental physiological law, that *the testicles secrete, or give out spermatozoa, under sexual excitement only.* The same general principle applies to all glands, that is, glands in general secrete or pour out their special fluid, only under the influence of some special stimulus. In harmony with that law, the testicles secrete only under the influence of sexual stimulation. At this point, we must make it clear that the process of making spermatozoa in the testicles is not included here under the head, secretion. This process of making spermatozoa is called *spermatogenesis, or sperm making.* Whenever the testicles have been depleted, that is, when they have secreted or given out the spermatozoa, they directly begin to make more spermatozoa. This process of making spermatozoa in the testicles is called spermatogenesis, as stated above, and is more or less independent of sexual excitement. After the male animal has become sexually mature, that is, at the climax of his period of puberty, the testicles make spermatozoa, which remain in a dormant condition or sleeping condition in the lobes of the testicles. In this sleeping or dormant condition, the spermatozoa may rest in the young man's testicles for many months, provided he experiences no sexual excitement. In this dormant condition the spermatozoa may be looked upon as a sort of savings account of young manhood; but should the young man experience a strong sexual excitement, accompanied by a sustained erection, these dormant spermatozoa are given out or secreted by the testicles, and are released from the lobes, pass along the ducts of the testicles, out through the epididymis and up through the vasa deferentia to the ampullæ. At the moment of release, that is, at the moment of secretion, the spermatozoa begin the strong lashing of their tails from side to side.



SPERMATOGENESIS OR SPERMATOZON-MAKING

"EUGENICS" ILLUSTRATION.—The process of sperm-making, which is the making of the male germ cells, called spermatocita, is an exceedingly interesting one (see pages 74-77). With the growth in size of the sex glands, there is a marked development of the cells of the germ-plasm. These cells undergo a division not very unlike the division noted in the amoeba, and there is formed a new layer of cells in the germ-plasm made up of the so-called mother cells. Each mother cell divides into two spermatoblasts, and each of these divides into two spermatozoa. Wonderful indeed are Nature's laws of sex!

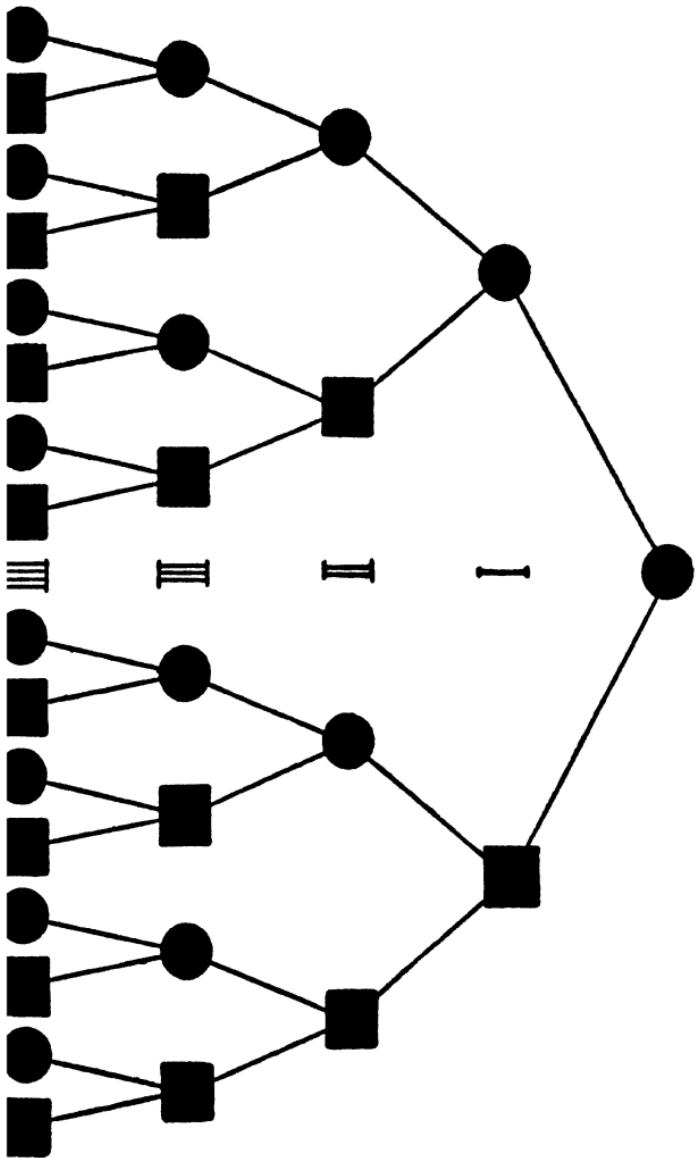
In this condition we call them nascent or new-born spermatozoa. Once a spermatozon is set free or secreted and begins the lashing of its tail, it never ceases this strong flagellate motion until it ceases for good and all. We have in preceding pages described what took place in the sex apparatus of the stallion when brought into the presence of the mare in heat. The spermatozoa in his testicles, which had been made by process of spermatogenesis, hours, days, weeks or months before, are set free, pass to the ampulla, where they are retained for a few minutes only, and at the climax of the sexual intercourse, immediately pass out, mixed with their rations, namely, the contents of the seminal vesicles and prostate.

In the preceding discussion of the work of the testicles, we have described the external secretions only. It is important for us to remember that the testicles prepare two entirely distinct substances. One of these, already described in detail, is the sperm, composed principally of spermatozoa. This is called the *external secretion* from the testicles. The other substance prepared by the testicles is called the *internal secretion*, because it is absorbed into the blood vessels.

Secretions are thus classified into two groups, the external secretions being those that are poured out upon the cutaneous or mucous surface. Examples of external secretions are the saliva, poured into the mouth; perspiration, poured out upon the surface of the skin; gastric juice, poured into the stomach; bile from the liver, poured out into the intestines, etc. Examples of internal secretions are the secretion from the thyroid gland, secretion from the suprarenal bodies, which are two little glands just above the kidneys. Some glands make only external secretions, as the salivary glands and the sweat glands. Other glands make only internal secretions, as the thyroid gland and the

GALTON'S LAW OF HEREDITY

"**EUGENICS**" ILLUSTRATION.—The word "**Eugenics**" was first used by Sir Francis Galton, of England, and means the generation of the good, that is, the procreation of the good. One of the laws of heredity, which Sir Francis Galton discovered and formulated was that half or approximately half of the unit characters, physical or mental, of an individual is inherited from each ancestral line through father and mother respectively; that is, half of our characteristics is from the maternal line through the paternal line (see Page 235). The above illustration shows the division of hereditary characteristics back through four successive generations, and in like manner, the division might be carried back indefinitely, generation after



suprarenal glands. But some glands make both external and internal secretions. For example, the pancreas prepares the well-known pancreatic juice, which is an external secretion poured into the intestines, there to exert an important influence on digestion. The pancreas also prepares an internal secretion, which is absorbed back into the blood, there to exert an important influence on the use of sugars and starches in the body. The liver prepares an external secretion, the bile, which is poured out into the intestines, to exert an important influence on digestion. It also prepares several substances that are absorbed back into the blood. These substances are internal secretions (also internal excretions).

The sex glands belong to this third group of glands, namely, to those glands that prepare both external and internal secretions. With the external secretions of the sex glands, men have been acquainted for thousands of years. The oldest writings make occasional reference to the "seed of the man." While this term, "seed of the man," applies many times to the progeny of man, in other cases it is evident from the context that it refers to the semen of the man. In fact, the word "semen" means seed. In a similar way, men have for a long time known about the products from the ovaries—the external secretion, the eggs—but it is comparatively recently that we have come to know about the internal secretion; in fact, the whole subject of internal secretions is a distinctly modern subject. There was no thought of any such thing existing before the epoch-making work of Brown-Segard, whose principal publication on this subject appeared in the *Archives of Physiology* in 1889. Two years later, Poehl, of Germany, writing in the Berlin *Clinical Weekly*, refers to this internal secretion from the testicles as "*spermin*," a term which has frequently been applied to

it since, though not universally used to designate it. In 1896, Zoth made some important contributions on this subject, which were published in Pflueger's Archives of Physiology. Zoth showed that this substance immensely increased the working power of muscles when injected into them before experiment. Since that time, more than a score of important communications have been published regarding researches in the laboratories of Europe. Most of these have been within the last ten years; and, practically without exception, they have confirmed the earlier findings; so that the proof is now positive and final that the testicles, as well as the ovaries, prepare this internal secretion from the beginning of adolescence, throughout adolescence and middle life, and until the beginning of the senile period. The best summary of these recent investigations on the internal secretions from the testicles and ovaries has come recently from the pen of Prof. Francis H. A. Marshall, and is entitled "The Physiology of Reproduction." (Longmans, Green & Co., London, 1910.)

The internal secretions in general have been found to exert a most profound influence on nutrition and development, as well as on several other physiological functions. For example, the internal secretion from the thyroid gland determines and controls the development of the normal infant into the normal youth; while the internal secretions from the testicle or ovary determines the development of the normal youth into the normal man or woman. If the thyroid glands were removed from the throats of two puppies, out of a litter of four, these two puppies, instead of growing up into perfectly normal, active, alert, playful young dogs, as would the two unmutilated puppies, would grow into drooling idiots, unable to walk, unable to feed themselves, having a vacant stare, slobbering and drooling from the mouth, and wallowing in their own filth—

objects of the most abject idiocy conceivable. A similar thing would occur in the development of a human child, who, through some misfortune, might lose the thyroid gland, or whose thyroid gland might be wholly incapacitated through disease or failure to develop. There are many cases of this kind known and described in medical literature, as cases of cretinism.

Once the animal has passed through the stages of its development into normal youth, then we come to the period, noticed heretofore, at the threshold of its adult life, when the internal secretion from the sex glands exercises upon its development an influence no less profound and far-reaching than that which is exerted by the secretion from the thyroid gland on the development of the infant.

One of the best examples that can be cited of the effect of the internal secretion from the testicle is that which it exerts upon the development of the horse. Most young men have seen, either at horse shows or upon farms or ranches, pedigreed stallions. No person can see one of these splendid animals without admiring, if not actually standing in awe of its splendid physical force, beauty of form, and grace and power of action. He is the physical ideal of the horse kind. What is the source of his strength and beauty?

The physical features that one notes peculiar to a stallion are, first, the great breadth and depth of chest, the great mass of shoulder and hip muscles, and the high, arched neck, fiery eye and luxuriant mane and tail; second, the functional features next noticeable are the greater alertness and constant physical exuberance, as manifested especially in the gait and the frequent whinnying. The thoughtful observer at the horse show or on the ranch cannot but compare these animals with the gelding. Two colts on a ranch may be full brothers, from the same

pedigreed stallion and the same pedigreed dam. At the age of two years these two young horses may be as like as two peas in a pod. One of these promising young animals is chosen, because of some commendable peculiarity of temperament or action, to remain unmutilated as a progenitor of his kind upon the ranch. The other is subjected to the veterinarian's knife and ecraseur, and deprived of the testicles—the male sex glands. From the day of this operation, these two animals, in every respect alike except that one is unmutilated while the other is deprived of the glands mentioned above, develop along radically different lines. The stallion develops, during his third year, into the noble animal described above. This third year is his period of puberty, and the changes which he undergoes, physically and temperamentally, are closely parallel to those which the human subject undergoes during his period of puberty. In one or two years the stallion develops into the great, fiery-eyed, hard-muscled war horse, such an animal as the General delights to trust himself to as he leads his battalions into battle, confident that his horse will carry him up to the belching mouth of a cannon if he wishes to go there. The stallion is absolutely fearless and absolutely tireless.

The gelding, on the other hand, develops into an animal that is in every respect a neuter. Physically, this animal develops a body almost identical with that of the female of the same species. Temperamentally, the gelding is a patient, plodding beast of burden; and, though under good grooming, he may show considerable life while under the control of his driver, who gives him an occasional touch of the whip, he seldom shows any interest in other members of the horse family, either male or female; and in the pasture or stable his neuter sex is ever apparent. While he may contend mildly, for a place at the feeding trough,

he never essays the defence of any weaker members of the herd; and one stallion would put a hundred like him to flight.

The thoughtful observer of this phenomenon cannot help wondering what has made this radical difference in the development of these two animals. The solution of the problem is not far to seek. From the beginning of puberty to the beginning of senile decay, the stallion derives from the testicles what is referred to above as internal secretion, the spermin. Physiologists agree that the internal secretion formed by the testicles is absorbed by the blood and lymph, is carried to brain and spinal cord, to the muscles and glands, and there produces this profound influence indicated above.

So we have discovered the source of the stallion's strength and beauty. What is true of the horse is true of man. The young man at puberty begins to receive from his testicles the internal secretion which leads to development of his full manly powers. The sum total of the qualities peculiar to manhood has been called VIRILITY. For want of a better word, this term has been applied to the sum total of the male qualities of any animal whatsoever; so that the male qualities of the stallion are also compassed in the term virility.

The inquiring young man will naturally wish to know at this point if this lesson from the beasts of the field can be applied in all its details to the human subject. The unqualified answer of the medical profession to this question would be in the affirmative. An exact parallel to the conditions described above can be found in the eunuch of the Orient. Two thousand years ago in human history, it was a common thing in Western Asia, for boys who were born in bondage, or sold into bondage, to be castrated. Such boys were sometimes brought in by the hundreds as

a part of the spoils of an aggressive war, and sold into slavery. As a rule, these boys were castrated before they entered the age of puberty. The men, who had bought them, knew from experience that, if they were not unsexed, they would, when they reached their young manhood, rise up and demand liberty; and they would fight to the death to regain liberty; but such slaves are neither profitable nor safe to own. So the men who owned these boys as mere chattels, simply had them castrated, well knowing that when they grew up they would be just as docile beasts of burden as the gelding. These eunuchs of the Orient, who were castrated before puberty, may be described as flabby-muscled, squeaky-voiced, beardless, namby-pamby mollycoddles, whose temperament manifests qualities of cringing servitude and lack of initiative. There is a curious tendency on the part of these creatures to lay on festoons of fat on chest and hips, presenting a pitiable similitude to the general outlines of the woman's body. These creatures are as different from a virile man as the gelding is different from the stallion. The secret of this difference is easily to be found in the fact that they have been deprived of the influence of the spermin from the testicles.

The application of all this to the adolescent young man must be very evident. From the time the youth passes into his adolescence, from the time that he begins his rapid growth in stature, from the time that his testicles begin their rapid growth—increasing, as they do, eight-fold in volume in the space of three years—from this time on, the youth receives every day of his life, perhaps every hour of the day, three hundred and sixty-five days in the year, the internal secretion into his blood, which is carried to the heart and sent out in a thrilling, pulsing stream through the arteries to every growing tissue of his body. His red blood is carried into his muscles by his strong, young heart,

and as the months go by, his muscles grow in volume and in tonicity. They lose that flabbiness typical of a boy in his ugly-duckling stage of puberty, and assume the tonicity and hardness typical of the muscles of the virile man. The trained football or basket-ball player, the trained wrestler or boxer can receive terrific blows on any part of his muscular system, without showing any evidence of pain or of injury to the tissue.

This same substance, the spermin, is carried to his central nerve system, to his spinal cord, his medulla oblongata, and his brain, and hammered into these by his strong young heart; and straightway his nervous system shows new functional attributes. He begins to act like a man; he begins to think like a man; he begins to do big things in a man's way; he begins to think bigger things in a man's way; he begins to make ambitious plans in a man's way; and he is a man, every inch of him a man; he must put away boyish things; there is a new light in his eye. This light is nothing more nor less than light from the kindling fire of manhood. He begins to see visions, visions of great things out in the world to be done; and he is ambitious to get out and do them.

In this connection, it must be noted that some boys and young men seriously interfere with this natural process of developing from youth into manhood by the act of masturbation or self-abuse. If this act is begun before puberty, and continued at comparatively frequent intervals, say, three or four times a week, or daily, the youth might almost as well have no testicles during such period of self-abuse; and if persisted in during the years of puberty, he will, instead of developing into the hard-muscled, fiery-eyed, ambitious young man described above, develop into a flabby-muscled, namby-pamby, cowardly molly-coddle, lacking in initiative and will-power.

Those who know conditions among boys are conscious of the fact that a very large proportion of boys, in some stage of their development, get into this habit. Some boys acquire this habit of masturbation or self-abuse, as stated in the previous chapter, because of a long, tight foreskin, under which irritating secretions collect. These little boys, in their innocent attempt to allay the itching, put their hands upon their organs. It is easy to understand how readily they may learn in this way the act of self-abuse. Other boys come under the malevolent influence of older, low-minded boys, who deliberately teach them the act of self-abuse. In any case, once the act is learned, whether accidentally or otherwise, if repeated frequently, it *seriously interferes with, if it does not wholly defeat, the plan of Nature for the young man's development*, and he fails to grow into the splendid type of manhood that was his birth-right. The degree to which he falls short of reaching the full stature of manhood will be *in direct proportion to his departure from Nature's laws of clean, right-living.*

It cannot be assumed that the condition of virility, once attained, will always continue. It must be maintained. To be maintained, this vital substance produced by the testicles must be continuously absorbed into the blood. When once the man or boy understands this, it must be evident to him that he has, to a certain extent, *the making or marring of his own virility*; that it is not simply an inexhaustible source of power provided by Nature, but, like such a natural resource as a forest or a coal mine, it may be exhausted, and, if not husbanded carefully, will be exhausted. On the other hand, clean, right-living, and clean, right-thinking will give mother Nature a free hand. The young man will easily attain and easily *Maintain the highest quality of virile manhood.*

It is a well-known fact, in the medical profession, that

the ovaries of the female exert upon her development an influence analogous to that which the testicles exert on the development of the male. If a girl of eight or ten years were to lose her ovaries, she would fail to develop those qualities of radiant womanhood that the whole world admires. She would fail to develop that beautiful symmetry and graceful rotundity of arm, neck and limb, typical of this period of her development. She would fail to develop that beautiful colouring of brow, cheek and throat, that is her birthright. She would fail to develop that wealth of glossy hair, that is her crowning glory. She would fail to acquire that lustrous light in the eyes, that marks her entrance into womanhood. On the other hand, her development would take a turn towards the masculine. As the castrated male develops form towards femaleness, so the castrated female develops form towards maleness; and we need not be surprised to see her at twenty-five with a heavy voice, bewhiskered chin, square shoulders, and a long stride, a being who, in trousers, would pass anywhere for a man. Such is the working of Nature when defeated in her plan. If a woman of twenty-five to thirty-five were to suffer the loss of both ovaries, she would probably go very early into a condition of senile decay, and, in a few years after the operation, might easily pass for a woman of fifty-five to sixty-five.

SEXUAL STIMULATION may be subdivided into two general categories, namely, conscious sexual stimulation and subconscious sexual stimulation.

Conscious Sexual Stimulation is partly mental and partly physical. The physical stimulation is produced by physical proximity of a member of the opposite sex. The physical and mental phases of conscious sexual stimulation are so intimately interwoven that it is exceedingly difficult to discuss one without constant reference to the other. And it

may be said, in this connection, that the mental attitude of the two individuals of opposite sex, who are brought into close physical proximity, will modify very greatly their local sexual responses.

Reverting to the lower animals, when the female in rut or heat, is brought into proximity to the male, as when the mare in heat is brought into proximity to the stallion, there seems to be, on the part of each animal, a consciousness of the character and attitude of the other animal; and both animals are, step by step, excited by various physical contacts, and probably also mental conditions, to a high state of sexual excitement, leading to the natural, ultimate result, coitus, in which event the sexual excitement culminates in the orgasm of the male, which empties the secreted semen into the organs of the female.

It will be easily understood that, in human subjects whose social relations (wedlock) permit them to indulge in sexual intercourse, close physical proximity and various caresses, lead step by step, in the normal course of Nature to sexual excitement and sexual desire, which may culminate as described above in the case of lower animals.

To revert to the function of the testicles, we may say, that during these various stages of sexual stimulation and excitement, these glands are actively secreting thousands upon thousands of nascent spermatozoa, which, being released, are hurried along, partly by their own flagellate movements, and partly by the action of the scillia in the ducts of the epididymis and the peristaltic contraction of the vas deferens—hurried along the vas to the ampulla. If the period of sexual excitement extends over fifteen to thirty minutes, the whole duct system from the epididymis to the ampulla becomes gorged with the secreted testicular product. This secretion consists of active motile spermatozoa, of spermatic granules and of mucus. The latter is

secreted by the ducts of the epididymis and the vas deferens, while the testicle itself furnishes only the spermatozoa, the spermatic granules and a small amount of liquid, just sufficient in quantity to float the spermatozoa out of the testicles into the ducts.

At the moment of sexual orgasm occurs what is known as the emission of semen. In this act the whole contents of the ampulla, vas deferens, testicle and epididymis, the contents of the seminal vesicles, the contents of the ducts of the prostate gland are all poured out, by a spasmodic muscular contraction, into the urethra, and by contraction of the walls of the urethra forced from that tube through the mouth of the urethra. Thus, in the act of emission, there is an intimate mixing together of the three components to the semen, namely, that from the testicles, that from the vesicles, and that from the prostate. So much for conscious sexual excitement.

Subconscious Sexual Stimulation is not accompanied by erection or by any mental or physical manifestation of sexual excitement. When a sexually mature individual is brought into more or less intimate relations with a normal, mature individual of the opposite sex, under conditions where the secondary sexual qualities may have free and unrestricted play, there can be no reasonable doubt that both individuals experience a subconscious sexual stimulation, which will influence them, both physically and mentally, through subconscious responses of their sex apparatus. One can easily imagine, for example, that a young man may meet upon the skating rink a young lady for whom he has a very sincere admiration and respect. She, on the other hand, entertains for him a similar admiration and respect. They may skate together the whole afternoon, and converse upon politics, art or philosophy, the young woman feeling herself swung along, almost carried,

on her companion's strong arm. The whole experience is in the highest degree pleasurable and exhilarating to her. She will be conscious of absolutely no sexual stimulation. On the other hand, the young man experiences most exalted pleasure in the company of his young lady friend, through the pressure of her hand upon his arm, the graceful movements of body and limbs, the smile, the light in the eye and the soft voice—all of these give him an ecstatic pleasure that he will be unable to analyse, even if he were inclined to do so. In his case, as in the case of the young woman, there has been absolutely no conscious sexual stimulation. In the case of neither individual has there been a thought of sex, as such, or of their sexual apparatus; yet, without a shadow of doubt, the sexual organs of both individuals have been more or less active during this period; they have been subject to subconscious sexual stimulation. In the case of the male, his testicles have been awakened into an activity of probably considerably less degree than in the case of conscious sexual stimulation; and during this activity of the glands, a certain amount of secretion has been formed. The effect of the experience described above is to make the young man feel stronger and more manly, and to make the young woman feel more womanly; and the admiration and respect of each for the other is greatly increased.

CHAPTER IV

SEXUAL HYGIENE OF THE MAN

No rational or acceptable system of sexual hygiene for a human male can be worked out without constant reference to the lower ranks of the mammalian class (horses and cattle), and to primitive social conditions. In our study of the anatomy and physiology of the sex apparatus of the human male, it must have become evident that man has many things in common with other mammals, and that no adequate knowledge of man's physical or mental attributes and qualities can be obtained without a study of similar conditions of life among related animals. In other words, the study of the sex relationship between male and female of the horse kind will throw much light upon these relationships as they should be found in the human race. It might be profitable for us to take a few paragraphs to explain just what these relationships are, as they may be observed on any farm, particularly on those large farms or ranches where the horses run more or less at large, and under conditions very similar to the primitive conditions for the horse. Under such conditions, we are justified in expecting that the horse will live his perfectly natural life, unmodified by conditions more or less artificial, which man has thrown about him. The writer had an opportunity in his youth to study the horse under such conditions on a far Western ranch.

Suppose that we have a herd of a hundred mares and ten stallions. Suppose that these stallions and mares run loose on the ranch at perfect freedom all the year round, or at least during breeding season. The horse is gregarious; there is no individual pairing off, except for the day or days when a mare is in heat. The attitude which the horses have towards the mares seems to be simply one of comradeship, except during the breeding season. At the beginning of the breeding season, say about the middle of March, and during a period of about three months, the stallion becomes distinctly more aggressive in temperament, more exuberant in temper and action, more noble and proud in carriage. As the mares begin to come into heat, the stallions contend for possession of them. The largest, strongest and most dominant and belligerent of the stallions will take possession of all the mares that come into heat during the first few weeks of the breeding season. Those stallions less equipped and less dominant will gain possession, perhaps, of no mares during the first two or three weeks, but presently, out of a hundred mares, there will be several come into heat in one day, and the less aggressive stallions then may have access occasionally to mares, especially when the young fillies, which are coming into heat for the first time, apparently frightened at the contention of the older horses, withdraw from the midst of the herd, and get off somewhat apart. It is a common thing for a young stallion, perhaps on his first breeding season, to pair off with a young filly, and they spend the day together, perhaps having sexual intercourse three or four times in the one day, unmolested.

An interesting part of this gregarious life of the horse is the fact that through the whole year, except during the day or days when the mare is in heat, which in most cases is only one day in the year, the attitude of the two sexes

towards each other is simply one of good comradeship. However, the stallions, in this primitive condition of gregarious, tribal, clan or herd life, are the natural protectors of mares and colts, and will fight at any time against a common enemy of the herd. It is interesting to see the attitude towards each other of the young stallion and the young filly the day after the filly has been in heat. As a result of that day's experience, she has become pregnant. Incidentally, both the male and female have become sexually depleted. The following day, they may feed together side by side out on the range, with no sign of a sexual approach between them. Anyone seeing them on that day would never guess the ardent passion which they had manifested the day before. It is important to note that the male of the horse kind never approaches the mare in a sexual advance when she is pregnant. If the young stallion and mare were mated by their owner, and put into a pasture where they would have absolutely free access to each other at all hours of the day throughout the year, this is what would happen: they would be good chums, good fellows together, until that day in the spring when the mare would come into heat. On that day, in some mysterious manner, the stallion would seem to detect at once the condition of the mare, and would at once approach her in that sex approach peculiar to their species. This approach would be accepted in the same spirit, and the mare would manifest her ardent passion in the way peculiar to their species, perhaps having intercourse two or three times during the day. Under such favourable conditions for conception, the chances that the mare will become pregnant on that day are at least fifty to one. As stated above, they will, on the following day, be simply good fellows together; this will be their relationship for a whole year, until the colt, which is carried by the mother eleven months, is about four weeks

old, when the mare will come in heat again. Under such conditions, then, the mare and horse will have sexual intercourse only one day in the year, practically giving up the day to that work of procreation.

It is interesting to note the physical condition of a stallion living such a life, which would be considered a continent life. From my own observations of stallions on Western ranches, I would say unreservedly that the continent life is not only not attended with any derangement of physical condition, but those stallions which serve few mares, five to ten or twenty in a year—and all, of course, during a few weeks in the spring—are among the finest stallions I have ever seen in physical stamina and temperamental aggressiveness.

All the changes above noted, which enter into the physical and mental development of the adolescent human male, were of a character to equip the individual for the maintenance and protection of a wife and children. This development has been reached by the time a young man is twenty-one to twenty-three years of age, when, in the average case, he would be able, so far as concerns his physical equipment, to establish and maintain a home. The fact that his adolescent development is complete by the age of twenty-five, and that he has, by the time he arrives at that age, grown into the full stature of all his physical and mental powers, may certainly be interpreted as an indication that his home building should be begun not later than the twenty-fifth year. This means, then, that young men ought, if possible, to marry as young as twenty-five. But the conditions of society at the present time are such that a large proportion of the young men, particularly those who are preparing for any of the learned professions (theology, medicine, law or pedagogy), are hardly through

their professional course by the time they reach that age, and most of them feel that they must make a start in their profession before they attempt the responsibilities of supporting a home. This means that a large proportion of them marry as late as thirty years of age. If we consider now those commercial, financial and industrial vocations, which involve considerable preparation in technical institutions or long apprenticeships (engineering, pharmacy, manufacturing, commerce, banking, journalism, etc.), we find that the young man is hardly able to establish such a home as most such young men feel that they must maintain, on any salary they receive before they are twenty-eight to thirty years of age. These considerations apply particularly to college and university men, as, almost without exception, these men are preparing for some of the above-mentioned professions or vocations. Now, the conditions of college life, the field sports and athletics, together with the social position, tend to develop in college circles a body of most virile young men. The problem which now confronts us is: How may such young men live a hygienic life under these unnatural circumstances?

Or, take the case of a young man who is expecting to go into business; he is very likely to begin his business training by the time he is eighteen years of age. Seven years of training bring him to twenty-five, when he should be in a position either to go into business for himself or to be advanced or promoted in the business or commercial house where he has received his preparation, to a position where he will receive a salary of from eight hundred to a thousand dollars a year at least. At this stage of his career, a young man in business should feel that he is financially able to establish a home. The writer believes that he should so arrange his plans as to do so. Of course, if he is to save a portion of his eight or ten

hundred a year, the home which he establishes will have to be a very simple one; their living abstemious or even frugal; and the wife will have to do her own work as the husband does his.

Assuming that the young business man does marry at this time, we must not forget that he is about twenty-five years of age, and has been obliged, during a period of seven or eight years, to maintain some definite attitude on the question of his sex life, having become sexually mature at seventeen or eighteen.

Let us now take the factory operative. A young man at sixteen goes into a factory or a big shop. He learns a certain phase of the business. If he is an average fellow only, with no high ambitions, he spends his evenings in seeking such amusement and entertainment as are at hand. By the time he is nineteen or twenty he will probably be receiving twelve dollars a week or fifty dollars per month. In the building trades a young man, as a rule, will not have learned his trade so that he can get the highest wages demanded by the union until he is about twenty-one years of age, and while he will be able to command a higher daily wage than the man in the factory, he is labouring under the disadvantage of many unemployed days during the year. So that, by the end of the year, he will have received in wages, but little, if any, more than six hundred dollars, or about the amount received by the man who receives twelve dollars a week. As we study these conditions, we are forced to the conclusion that the skilled labourer of the ordinary type will be getting, by the time he is twenty-one years of age, about as high wages as he will ever receive in that work. If he is unencumbered by obligations to his father's family, he ought to establish a home of his own in his early twenties, perhaps by the time he is twenty-one or twenty-two. But even for this young

man, married at about the earliest age feasible under present social conditions, he has at least three or four years of life between his sexual maturity and his marriage, during which he will have periodically to meet the problem of sex desire and sex impulse, and he will be compelled to take a definite attitude and stand, in one direction or another, as to what he will do regarding the sex problem. The more ambitious men in these lines of skilled labour, who spend their evenings in study with a view to advancing to positions of foremen in shops, and superintendents or managers of departments, will hardly reach a degree of advancement in the line of their ambitions to justify them to establish homes before they are twenty-five years of age; or they belong, in other words, to the same general social class as the ambitious young business man.

If a man becomes able to procreate his kind at seventeen, but is unable, according to our present social conditions, to marry before he is twenty-five or thirty years of age, he must solve the problem as to what his attitude will be regarding matters of sex. This problem, concerning the young man of our times, is one peculiar to the advanced civilization, and one not found among primitive races. When our own forefathers were in the condition of primitive men, there is no reasonable doubt that they were mated much earlier in life, probably as soon after sexual maturity as they were physically able to win possession of a mate. This might be as early as the eighteenth or nineteenth year in case of the especially well-equipped male of the tribe. The less virile males of the tribe, or those less aggressive and less highly developed physically, might have to wait until some war had decimated the ranks of the fighters of the tribe, when those left-over men would be able to mate.

But in modern society all these conditions are changed,

and the young man, as stated above, is forced into a position where the sex problem must be solved during those very years when sex impulses come most frequently, and sex desires are most potent. The earlier he solves his sex problem—assuming that he reaches a wise solution—the better it is for a young man. Unfortunately, many young men do not realize that they have any problem in this field to solve, until through some unfortunate influences they have acquired a mental attitude, and perhaps a habit of life, that may not be either wholesome or wise.

From what has preceded, it must be evident that from the early months of the period of puberty, through the adolescent and adult period, even until some progress is made in the senile period, every normal male will experience sexual desire. It has been shown that these particular experiences are linked more or less intimately with the condition of the sex apparatus. But, whatever the cause, we are confronted with the question : *What shall be done about it?* When a man experiences a sexual desire, does it necessarily follow that the desire must be satisfied? Some have reasoned that the muscles of the arm, if not exercised, wither and become weak. Therefore, by analogy, the sexual apparatus, if not exercised, will become weak; and if its function is not repeated at comparatively regular periods, the apparatus will eventually become withered and atrophied. While this course of reasoning is absolutely sound, so far as it applies to the muscular system, and while the reasoning may seem rational, and the conclusion may seem tenable, in its application to the sexual apparatus and sexual function, it is well known to physiologists and sociologists that the reasoning is fallacious. The fallacy rests in the premises. It is assumed above that the activity of the sex glands is comparable with that of the muscles. We must not lose sight of the fact that the *sex glands are*

continuously active; and, in this continuous activity, they get their exercise. This activity develops them and keeps them physically perfect after the onset of the period of puberty. Their activity consists very largely in the formation of the internal secretion, the function of which is to develop in the male the highest possible state of virility, as fully described above.

In this connection, we might call attention to the fact that the muscles are kept in a perfect physical condition by two or three hours of active exercise in each twenty-four hours; but the sex glands are working more or less continuously. Hour after hour, seven days in the week, three hundred and sixty-five days in the year, nights, Sundays and holidays included. They are almost as continuously at work as the heart.

We must also note the fact that every procreative act is performed at a sacrifice of some of the vital fluid on the part of the male. A wanton sacrifice of vital fluid, either in the act of self-abuse or excessive indulgence in the sexual act, is not justifiable under any consideration. In the light of these facts, every normal man will admit that frequent masturbation or excessive sexual intercourse, in wedlock or out, would certainly not be recommended as a method of developing the sex apparatus.

Most men, however, raise the question: Is any indulgence or any artificial means for satisfying the sexual inclination to be discouraged? This inclination comes to us in the course of nature. Man, in a primitive state, would seek a mate as soon as he felt this inclination, would fight for the possession of her as soon as he had reached a sufficient stage of muscular development, and, once in possession of his mate, would take her to his lodge in the trees or to his cave in the rocks. In his primitive home, he would follow his sexual inclination, impregnate his wife,

and protect her against all dangers. Under our present social conditions, the young man experiences all these desires the same as his primitive ancestor, but, as a rule, he is not able to choose a mate and begin with her the building of a home for at least five years, and perhaps ten or fifteen years, after he experiences the desire to do so. What is the solution? It must be evident that the solution lies in the acceptance of one or another of three alternatives. Either the young man will seek illicit intercourse with women to satisfy his sexual desire, or he may take some artificial measure, such as masturbation or self-abuse; or, finally, he will lead what is known as a continent life. By "continent" we mean to adopt neither one of the first two alternatives mentioned, but to leave the sex apparatus wholly inactive, so far as external activities are concerned, subjecting them to no artificial stimulation whatsoever, and indulging in no illicit intercourse whatsoever. This is the continent life.

We may now consider these three alternatives in turn.

By ILLICIT INTERCOURSE WITH WOMEN, we mean sexual intercourse out of wedlock. The term applies either to intercourse between any man and a prostitute, between an unmarried man and a married woman, between an unmarried man and an unmarried woman, or between a married man and a married woman not his wife. The term "illicit intercourse" applies to all sexual intercourse that is illegal.

In our discussion of the young man's problem, we may confine our consideration particularly to intercourse with professional prostitutes and the clandestines, or women who are willing to accept the sexual embrace for money, or for their own gratification.

In this phase of sexual gratification, it is assumed that the woman has these relations with various men. We

purposely eliminate from this discussion the deliberate seduction of pure girls for the purpose of sexual gratification, as such seduction is a heinous crime against the victim and against society, for which offence the man is legally responsible. We are here discussing not the crimes of men, but their vices.

The question that the young man naturally asks is : Why should society hold these relations as a vice when the woman, who is party to the act, gives her free consent, perhaps even soliciting the relation, and has given herself up to this sort of life, either as a sole occupation (prostitute), or as an auxiliary occupation (clandestine) to supplement a wage on which she may not be able to live in luxury ?

The answer to this question is not far to seek. Women so occupied have, as a rule, made themselves incapable of maternity. They are outcasts from society, unfortunately exerting a most harmful influence on all those who come into relation with them. Furthermore, they are centres for the dissemination of venereal diseases, which wreck the health of all those who become infected. *But for the uncontrolled passions of men, there would be no such women.* So while the reader may not be responsible for the ruin of any woman, we must confess that *men as a class are responsible* for this condition of prostitution and clandestine intercourse. An overwhelming majority of women would, if following their inclinations, seek these relations in wedlock only and for procreation only. But many a young woman, under promise of marriage, sometimes even under a bogus marriage, is brought into a condition of hypnotism or into a mental state that puts her in the power of the man whom she loves and respects. If he deceives her and betrays her, continuing such betrayal until the victim becomes pregnant, he will, in the average case, leave her to bear her child in shame, while he slips

away to other scenes of activity. We cannot wonder that the girl—deserted, humiliated, crushed, by the one in whom she reposed absolute confidence, cast out of society, perhaps thrust from the protection of her own father's roof—gives up the struggle and says, "*What's the use?*"

A vast majority of such poor girls make their way to houses of ill-fame and give themselves over to a life of prostitution. *Hardly one of these women, if married by the man who brought her to this condition, would have failed to make a true and loving wife and mother.* So society, while it casts these women out, has come to recognize that *men are the real sinners* in such cases.

It may be added here, that an occasional girl goes wrong through temperamental shortcomings in herself—perhaps she may even be a degenerate; but the proportion of women who would willingly and deliberately sacrifice their virtue is vanishingly small as compared with the proportion of young men who seem to be willing to sacrifice their virtue. This is probably in part due to their training. Mothers, as a rule, instruct their daughters carefully regarding their relations with boys and men. It is in part due to the instinctive and inherent purity of mind of the normal woman.

Nature has devised a retribution for illicit intercourse in the form of venereal disease. If the parties observe fidelity to their marriage vows, venereal disease is experienced in wedlock only on very rare occasions, and then through some accidental infection, as from contact with some public utensil, as a public water-closet, a public towel or a drinking cup. So rare is this unfortunate accident, however, that we may say that intercourse in undefiled wedlock results normally in pleasure and gratification to both parties; while intercourse out of wedlock, or illicit intercourse, is destined, as a rule, to be visited with retribution.

What form does this retribution that nature metes out to the vice of illicit intercourse take? Besides the various psychic punishments, the principal of which are remorse and impure thoughts, there are physical punishments in the form of venereal diseases. So prevalent are these venereal diseases among lewd women, whether prostitutes or clandestines, that specialists in the field say: "*All lewd women are diseased part of the time, and some lewd women are diseased all the time.*"

These sexual diseases are contagious, that is, transmitted by contact. They are all germ diseases; one of them practically local, one is capable of spreading the infection to contiguous organs, and one is systemic.

CHANCROID OR SOFT CHANCRE. This is the least dangerous of the venereal diseases. It is a contagious disease of purely local type, usually acquired during the sexual act, the infection taking place through a break in the continuity of the mucous membrane.

Chancroid may be single, though it is most often multiple. It makes its appearance in from one to five days after exposure, anywhere on the penis, but most frequently on the under side of the glans beside the frænulum, as a small red spot. This rapidly takes the form of a blister containing serum and pus, and in a few days may become the size of a ten-cent piece. When the roof is removed, the ulcer has the appearance of having been punched out, the floor being covered with pus. It is surrounded by a zone of inflammation and is painful.

If uncomplicated, the disease runs its course in from two to five weeks. The most common complication is swollen and suppurating glands of the groin on one or both sides. This condition is termed *bubo*, or "blue ball" in common language.

Sometimes serious complications arise which may prove

dangerous and require the individual to be confined to his bed for weeks.

GONORRHEA. This is incomparably more serious than chancroid. This disease is very prevalent among the incontinent, and it is claimed by some specialists in this field that from sixty to seventy-five per cent. of men have had gonorrhea before the age of thirty.

It is a contagious disease, acquired usually during intercourse, though the individual may become infected innocently from water-closets, bath-tubs, public towels, fountain syringes, etc.

To become infected it is not necessary that there be an abrasion of the mucous membrane.

The disease manifests itself in from three to seven days after exposure, by swelling of the orifice of the urethra, and peculiar sensations between tickling and itching, and smarting or burning during urination. The peculiar sensations fix the attention to the genitals, thus causing frequent passage of urine.

These symptoms increase for about a week, when the disease reaches its maximum degree of severity, which is maintained a variable time, the discharge from the urethra being thick, creamy, and of a greenish yellow colour.

In the majority of the carefully treated cases, the discharge ceases in from three to six weeks with apparent recovery. Unfortunately, however, there is frequently a tendency for the disease to become chronic. The discharge becomes thin and more watery and persists for an indefinite period. This condition—chronic gonorrhea—is commonly known as *gleet*.

Twenty-five years ago, it was a very common thing, even for clinicians lecturing to their medical students, to refer to gonorrhea with some jocose remark, sometimes even intimating to the young medical men that they "will

hardly be able to treat this disease effectually until they have had some personal experience with it." But those were the days of the dark ages, before these subjects were illuminated by the lime-light of modern experimental science. The modern microscope, with all its optical perfection, and the science of bacteriology, one of the most exact and highly specialized of the new sciences, have revealed facts regarding gonorrhreal infection, of which the medical profession of a quarter of a century ago little dreamed. We have found that this infection may spread from the urethra up past the sphincter muscle of the bladder, infecting the bladder as well, and causing a most distressing condition known as gonorrhreal cystitis, or, expressed in plain English, an inflammation of the bladder caused by a clap infection. This inflammation may pass from the mucous membrane of the bladder up through the ureters into the kidneys, in which organs it causes an incurable and serious derangement. Again, the infection may pass along the ejaculatory duct into the seminal vesicles, causing a chronic gonorrhreal vesiculitis, which is very difficult to cure and very depressing and depleting, as it causes very frequent nocturnal emissions of a depleting character. It may pass up through the ampulla and down into the testicle, in which it causes one of the most distressing inflammations known. This condition is called, technically, gonorrhreal orchitis, or a gonorrhreal inflammation of the testicle. As a rule, only one testicle is affected at a time. The inflamed testicle becomes very much enlarged, perhaps two or three times its usual lineal dimensions, and it is painful beyond any power of language to express. The inflammation lasts a number of weeks; and when it subsides may leave the fine tubules of the epididymis affected with stricture, which practically closes off the testicle and makes it useless as a procreative organ,

though there is a possibility that it may still function as an organ of internal secretion. Occasionally a man loses both testicles, either through being simultaneously infected or through two successive infections. In that case, of course, a man becomes completely impotent.

It has been found, within the last decade or so, that the virus may get access to the blood and cause that most painful and disabling condition known as gonorrhreal arthritis deformans, or, in plain English, deforming rheumatism of joints from gonorrhreal infection. This condition, of course, is incurable, and may destroy a man's joints to such an extent as to wholly incapacitate him for work, besides being a most painful disease.

Still another condition brought about by the virus, when once it gets access to the blood, is gonorrhreal endocarditis. This is associated, as a rule, with valvular disabling of the heart, and may be so serious as to cause death. But these serious results of gonorrhreal infection are not by any means the worst results that may follow the infection. It has been found, within the last few years, that the gonorrhreal germs may get access to the fine tubules of the prostate gland, where they go into a sort of dormant or resting stage. In this stage, they may remain for one, two, three or four, and some have said as many as ten years, finally to be dislodged or awakened, and set into activity, to make their way out of the prostate into the urethra, and cause a reinfection of this tube. If a man, who experiences this return of his long-dormant gonorrhea, has in the meantime been married, his wife is practically certain to catch the disease from him. *In such case, it is the wife who reaps the harvest of wild oats sown perhaps years before by the husband.* A case was brought to the writer's attention, not long ago, by a well-known surgeon in a neighbouring city, who stated that he was one day called to visit a young

wife who had, only a few days before, returned home from her honeymoon trip. About the day of the return of the young married pair from this trip, the wife experienced an appearance of what she supposed was leucorrhœa, and her condition failing to yield to her simple douches, she called in their old family physician, the trusted practitioner who had stood by her mother when she came into the world, and who had seen her through the measles, whooping-cough, and the other diseases of childhood. When he saw her condition revealed on examination, one may well imagine his surprise and astonishment. A microscopical study of the pus that was pouring in large quantities from her vagina, confirmed the physician's fear, and he recognized that they had to deal with a serious gonorrhœal infection. Large abscesses were in both Fallopian tubes involving the ovaries. The young woman had to be taken at once to a hospital, and in consultation several experienced surgeons concurred in the belief that, unless both ovaries and tubes were removed at once, the young woman would lose her life. So she was obliged to go on the table and be unsexed for life.

The fact that she was readily granted a divorce from the man who had been the cause of her physical ruin was very meagre consolation, as she remains to-day at home under her father's roof, an invalid for life, unsexed, and the possibility of maternity removed for ever.

Another case might be cited where innocent parties are made to suffer for the sins of others: the case, all too frequent, of the child that comes into the world through an infected parturient canal, to show signs, within a few hours after birth, of gonorrhœal infection of its eyes. If these infected eyes are not at once taken care of, most skilfully and assiduously by nurse and physician, the child is certain to lose its eyesight. Before the nature of this eye

inflammation in the new-born was understood, it was commonly reported in such cases that the child was born blind; but we know now that there are very few children who come into the world blind, though there are many that show gonorrhreal infection within a few hours after birth; and, as stated above, if this condition is not treated with the greatest promptness and skill, they never really see the light of day.

Syphilis, popularly termed the "pox," is a constitutional affection of the type known as "blood disease." No disease has been so widespread in its dissemination or more potent in its influence upon humanity.

It has been known for centuries, having been mentioned by Japanese historians and in Chinese writing two thousand years ago.

Syphilis is contagious, and is transmitted by inoculation. The infectious material enters a broken surface of either the skin or mucous membrane, called "contact" or "acquired" syphilis. When it is transmitted by the mother to the unborn child, it is called "hereditary" or "inherited" syphilis.

The disease manifests itself first in a "*primary lesion*," which is a local ulcer (hard chancre) at the point or points of inoculation at a period ranging from ten to thirty days after exposure. It may appear as an erosion or as a dry scaling and indurated papule, varying in size from a pin-head to a silver dollar. The base of the ulcer is indurated. It is oval in shape, perhaps somewhat irregular, with a raw surface and a red-coloured base devoid of pus.

Immediately following the appearance of the chancre, the glands in direct connection with it become enlarged and hard, but rarely painful; however, they have no tendency to suppurate like the enlarged glands of chancreid.

The chancre disappears in a few weeks, and then there is a period when the individual has no outward manifestation of the disease. In about six weeks after the chancre, the so-called *secondary symptoms* appear. They are heralded by headache, pains in the limbs and back, nausea, sleeplessness, nervous irritation and fever, followed by the appearance of a rash upon the face and body, falling-out of the hair, sore throat and mouth. These symptoms disappear, to be again followed by a period free from symptoms. After a longer or shorter time, the so-called *tertiary symptoms* make their appearance. These are many and varied.

The disease presents a succession of morbid constitutional disturbances, appearing at variable intervals, and pursues a chronic course.

This disease remains in the body for years, and affects the most vital organs, particularly the brain and spinal cord.

When one is infected with this disease, he should seek the services of a reputable physician. The treatment of this disease must extend over a long period, usually about three years, and must be strictly and conscientiously carried out. *Marriage upon the part of an individual once infected should be for ever prohibited by every social, moral and legal code* until, after years of treatment, positive assurance is given by skilful physicians that every vestige of the disease has disappeared.

After having detailed, as above, the terrible consequences of the venereal diseases, it is hardly necessary to add that the young man who deliberately seeks any of the usual chances for illicit intercourse is *more than taking his life in his hands*. If infection with a venereal disease meant simply the death of the infected individual, it would be really very much less deleterious to society than is the

present condition. When a young man "sows wild oats" and catches incidentally gonorrhea, that twenty years ago was considered a "good joke," he will, in a large proportion of cases, lay the foundation for broken health, and will *run a serious risk of transmitting disease to an innocent, pure wife and child.*

When a woman catches this disease, particularly from her husband, she is very likely to interpret the discharge as a leucorrhoea, may say nothing about it to her husband or physician, but adopt simple home treatment with antiseptic and astringent douches. Such treatment will usually result in allaying the inflammation in the superficial organs, but will not eradicate it from the deeper organs. It spreads to the uterus, Fallopian tubes and ovaries, and may even affect peritoneal tissues, first of the pelvis, then of the abdomen —may even finally affect the heart and joints. Of course, these are rather the extreme cases, but they are not at all rare cases. Once this terrible disease gets into a woman's organs, it is very likely to lead to her sojourn in a hospital, where she may lose ovaries, Fallopian tubes, and possibly also uterus, as a sacrifice to this mogul of gonorrhea.

It is claimed by specialists in this field that *at least seventy-five per cent.* of the operations that women are subjected to in the hospitals for disease of the pelvic organs are the results of gonorrhreal infections. Besides the cases that require operations, a large proportion of cases of sterility is due to gonorrhreal infection, either in the man or woman, or both.

If we consider the revolting sequences of syphilis, with its train of operations, and progeny of scrofulous children, and degenerate grandchildren, it would seem to make the natural retribution for illicit intercourse *infinitely outweigh* any brief pleasures derived from the indulgence of sexual

desires lacking the proper mastery of self through strong will-power.

It hardly seems possible that any young man who knows the whole truth about these venereal diseases and their terrible after effects would be tempted to indulge in illicit intercourse.

MASTURBATION. The vice of masturbation or self-abuse is very likely to be learned in boyhood, perhaps even by boys of six or eight years of age, through their association with obscene playmates. It not infrequently happens, however, that the habit is learned independent of these evil associates. It has been explained above that secretions frequently accumulate under the prepuce, and, accumulating there, serve as a local irritation, causing itching of the organ. This local irritation leads the boy to allay the irritation through rubbing. Such manipulation of the organ is very likely to excite it, and to lead to the discovery on the part of the boy that such local manipulation may cause a pleasurable sensation of momentary duration. If he has not been instructed by his parents that these organs are *sacred to the uses of manhood*, and that they will be injured if handled during childhood, he is very likely to repeat this act until it becomes a more or less fixed habit.

While it must be admitted that anything short of extreme excess in this habit among little boys will not be permanently injurious, if the habit is stopped at puberty, it must be perfectly evident that if a boy enters puberty with this habit, the mental and physical conditions of puberty are such as to make the habit very difficult to stop. *If it is not stopped, a serious injury will result.* So the necessity need hardly be further urged for explaining to young boys that these organs should not be handled. After the boy enters puberty, the habit of masturbation, either

acquired during puberty or carried into that stage from early boyhood, begins to have a deleterious effect.

Let us now consider just what is the character of this deleterious effect. From what we know of the physiology of the sexual apparatus, it must be evident that a sexual orgasm could be produced during waking hours only through strong stimulation of the activity of the testicles, accompanied by liberation of spermatozoa and of the other elements of the vital fluid. Let us not forget in this connection the statement made above : that the testicles produce two forms of secretion, the internal secretion and the external secretion; the internal secretion, being absorbed, produces those male characteristics which we group together under virility, while the external secretion is used for procreation.

If the adolescent young man is leading a continent life, we may assume that, from time to time, he is subjected to conditions which serve as strong sexual stimulation, arousing in him a definite desire for sexual intercourse; but, leading a continent life, he curbs his desire and fixes his thoughts upon other subjects. In this way, though the sexual excitement is brought quickly under abeyance, we can rest assured that a certain number of spermatozoa have been released from the testicles, and that the other secretions have been increased in volume. The excitement may be sufficient even to cause an erection, and produce a few drops of the secretion of Cowper's glands. The spermatozoa, together with a small amount of the internal secretion, will make their way gradually along the vas deferens and collect in the ampulla. The small advance guard of spermatozoa that may have made their way to the ampulla will undergo a gradual decrease of their nascent activity as the days go by. On the occasion of the next nocturnal emission, the ampulla will empty, along with the seminal vesicles, and

these spermatozoa pass out. If they be examined under a microscope as a part of a normal nocturnal emission, they will be found to be almost motionless or very greatly lacking in typical spermatozoa activity.

Now let us suppose that the young man, instead of curbing his sexual appetite, resorts, after a season of erotic imaginations, to the act of masturbation. We may picture the seminal ducts, vasa deferentia and ampullæ as being gorged with the secretions of the testicles, including, of course, myriads of just released and nascent spermatozoa, together with several cubic centimetres of the liquid portion of the vesicular secretion. The act of masturbation causes an orgasm and leads to a complete emptying of all these ducts. Thus we note that in this case the virile fluid is wasted, not being used in the procreative act. In the loss of the semen, the victim of this loathsome habit of masturbation has lost a vital fluid representing *far greater potentiality than the same quantity of blood*. It must be evident from this picture of the processes that go on in the male sexual apparatus, incident to the act of masturbation, that the act cannot be performed repeatedly, as it naturally is when it becomes a habit, without *very seriously interfering with the vitality and the virility of the adolescent male*.

In the study of a large number of cases, the author has found that the principal physical changes that occur in the young man, as the result of this habit, are flabbiness of muscle, shiftiness of eyes, and clamminess of hands. The really virile man possesses firm muscles, and clear, direct eyes, and a strong grip; usually, also, a warm grip.

It has been thought, by some, that pimples on the face are a sign of masturbation in the youth, but such is not the case. They are a sign of lack of adequate elimination through the kidneys and bowels, and are not to be inter-

preted as having any essential relation to masturbation. There may possibly be an incidental relation, growing out of the fact that, in some cases of masturbation, that habit seems to affect the nutrition, and that in turn may cause the appearance of pimples on the face of the adolescent. However, one must be very slow to pass judgment in these cases.

Not the least important among the results of masturbation is the attitude of the victim to society in general. This psychical change is noticed in immoderate cases of masturbation and takes the form of disinclination to enter into any physical contests, or games; and disinclination to cultivate the society of the opposite sex. Here again, one must be conservative in his judgment, because there are individuals who possess a very retiring temperament naturally, and who may become so engrossed in study or productive work that they take little share in the society of either sex; so that individuals, who may be wholly innocent of any abuse of their sexual apparatus, would suffer a very grave injustice if they were classed among the masturbators. Allow the author at this place to emphasize the importance of never passing judgment on anybody in these matters on circumstantial evidence.

While the damage that one may do to his system through the practise of masturbation may not always be very serious, in many cases that have come under the author's observation, in which the habit has reached extreme limits, *very serious, sometimes irretrievable damage has been done*; yet the encouraging feature of this whole matter is that, if the adolescent youth, who is practising the habit, is warned of its danger and stops at once absolutely, *Nature comes to his rescue*, and gradually, step by step, but surely, rebuilds the whole fabric of his virility, bringing back gradually the flush of perfect health into his cheek, the light of perfect man-

hood into his eye, and the tone of perfect virility into his muscles.

This change can be wrought in from one to three years of absolute continence. Nature, like a loving mother, heals the wounds of her child with a kiss.

CONTINENCE. Such frequent reference has been made above, to continence, in antithesis to illicit intercourse and masturbation, that little need be said in addition to that which has preceded. The young man who holds before his mental vision an ideal of the home he hopes some day to establish—in which a pure wife reigns as queen, sovereign of his life, and gently hovers over a brood of lusty boys and fair girls—cannot for a moment consider, as a sane solution of his sexual problem, periodic visits to the house of ill-fame or periodic lapse into illicit intercourse with clandestines; nor can he expect to develop his powers, physically or intellectually, to the highest possible degree, if he permits himself to contract that habit (masturbation), which, step by step, undermines his development. There is open to the young man only one of the three alternatives mentioned above, that is, *to lead the continent life.*

The continent life is *the goal which every healthy young man should strive to reach.* To arrive at a goal that is before us and above us requires sacrifice and brings compensation. The sacrifice takes the form of the exertion of the whole will-power of the man, and the painstaking observance of those rules of hygiene which makes continent life more easily attainable. The compensations of continence are those that come from the assurance that the young man has, of his virility, of his worthiness to take the hand of a pure wife in wedlock, of the consciousness of his ability to establish and maintain a home, to protect this home against all dangers, and to beget healthy, strong and perfect children, wholly free from any hereditary taint.

CHAPTER V

FATHERHOOD

THE young man who has led a continent life up to the time when he assumes the holy bonds of matrimony, and who has followed such a rigorous hygienic regimen as that outlined in Part V on Personal Hygiene, has prepared himself, physically at least, for the high estate of fatherhood.

The man who has conserved his natural resources so carefully and conscientiously will be sure to choose a wife with the same care that he has manifested in the solution of his other life problems. We may picture the young married pair, then, as typical and perfect specimens of the human species. The young man, hard-muscled, with the light and fire of manhood in his eye, in perfect health, abstemious in habits, alert in his business or professional activities, simple and frugal in his habits; the wife, the embodiment of all those qualities of radiant young womanhood, so admirable and attractive the world over. We may picture the young wife as especially adapted to home-building, in education and temperament and inclination. She is thoroughly trained in all the activities involved in good housekeeping.

These young people enter upon their new estate with the firm determination of building an ideal home. In their conjugal relations, they observe the same temperateness and abstemiousness that they do in all other matters which are

concerned in the gratification of natural inclination and appetite. In all their relations, one to another, the husband is affectionate and considerate of the wife's needs and wishes. On her part, the wife studies the temperament of her husband. She observes his likes and dislikes, and finds her chief delight in so ministering to his physical and mental needs as to elicit from him those manifestations of the lover, which are so sweet to her during the days of their courtship. Where a married couple observe all these little rules of married life, there is no growing cold of their love. They are drawn closer and closer to each other in the bonds of love, and as the years go by, we can imagine that within one or two years a child comes into their home to add its quota of care, and to bring a new fund of inexhaustible joy and happiness, and a new source of unending interest and delight. This little life brings another mouth to feed, and other needs to minister to; but the young parents are made incomparably happier in the little sacrifices they must make for the baby than they would have been if the baby had not come. As the years go by, and the family gradually increases, the father's burdens for the support of his family are commensurately increased; but, on the other hand, as a rule, his earning power is also increased. With his advance in experience, he is very likely to be advanced to the position of greater responsibility in business or in the professional world; and, with greater responsibility, he should receive greater remuneration. This aspect of the life of the head of the family may well be dismissed with this brief reference.

The writer wishes to take this occasion to make an appeal to all fathers to take a more intimate and active part in the inner life of the family than is frequently or even usually the case. Many fathers leave not only the care, but also the governing of the children, almost, if not wholly,

in the hands of the mother. Then the mother, as a rule, bears the whole burden of the care and the teaching of the children in the home. The father returns from his work in the evening, weary; and if he has been working out of doors, the warmth of the home and the bright lights of the sitting-room seem to make his eyes heavy, and he drops into a peaceful slumber. Or, if not given to sleeping in his chair, he may bury himself in the daily paper and use an evening hour to read the paper that he did not have an opportunity to read in the morning; or he may become involved in club work, and spend one to three or four evenings a week away from home in a club. In any one of these cases, the father seems to be consulting rather his own personal inclination than the best welfare of his family. If the stories of two or three generations ago may be believed, the fathers of that time used to romp with the children and cultivate a spirit of good comradeship with them. I am rather inclined to believe, however, that these were the fathers that got into the story books, and that fathers are no more derelict in this regard at the present day than they have been in the past. The ideal condition is that fathers in general should be stimulated to adopt that attitude and these home customs that caused a few of the fathers of former generations to get into the stories. If the head of the family would romp with his children after the evening meal, he would find himself retaining his health. He would not get old and inelastic. He would retain his childlike simplicity and gaiety of disposition and carriage. He would be more sympathetic with his children and more lenient towards their little childish foibles, fancies and failures.

Let us grant that, in all the matters of government and care within the home, the mother most naturally plays the leading rôle; but no father should feel that he has done

his duty unless he has at least played a strong second to the mother. They should have frequent conferences regarding the development and peculiarities of individual children. The father should be made acquainted with everything that the mother is teaching and trying to instil into the minds of the children, so that when they come to the father with questions along similar lines, he, knowing what the mother has said, will be able to substantiate and reinforce her teaching.

There is one phase of home teaching that cannot be briefly discussed in these general terms. The writer refers to teaching regarding the sex life. In every growing family, where new little ones are being added to the growing circle about the hearth-stone every two or three years, the question is sure to be asked by older children, when they reach the age of six or seven : "Where did baby come from?" Parents used to answer this honest and fair question, equivocally, even with deliberate untruth and falsehood on many occasions. Some such fantastic fiction as the "stork story" that has come down from antiquity was given the child in answer to his question regarding the source of the baby. But experience has shown that this way of dealing with the problem of the child's questions is a very unwise one. The child will not come to his parents with these questions after he discovers that he is not given truthful answers. *The child wants the truth.* He will feel that there is a mystery connected with the coming of the baby, that, for some reason, the parents wish to keep hidden. This only excites his curiosity the more, and he is not long in finding out that some of the older children in the neighbourhood have found out about the mystery, and are ready to impart information, which he receives with the keenest interest, simply because it is the revelation at last of the hidden mystery. That children

gossip among themselves regarding these matters is a very well-known fact. It is also a fact, and a deplorable one, that a great deal of misinformation and untruth gets mixed in with the truth, and the young child's mind becomes early stored with a great mass of unspeakable misinformation in which there are only a few grains of truth. Incidentally, he has acquired an unfortunate distrust of his parents, especially concerning all matters of information in this general line, and his mind is poisoned, perhaps for life, regarding some of the *most sacred things of human experience.*

It is very easy to see that a child who is told this great truth of "where babies come from," in the matchlessly beautiful way narrated in a preceding chapter, will have his little mind and heart filled with the thought of the *sacredness of the relation of mother to child.* To a child thus instructed, the vulgar story and the ribald joke are offensive in the highest degree. His mind gives no place to such things when they are incidentally heard.

If parents will only answer the fair and natural questions of their child concerning these matters with the absolute truth—never overanswering a question, but always answering it briefly and truthfully—they will find that, as the years go by, these natural questions of the child, together with the answers to the questions which they have given, reveal these great life truths in a perfectly natural and logical way to the child's mind, and by the time a child is at the threshold of adolescence, he is in possession of all the major truths concerning reproduction and development.

Naturally, it falls largely to the mother to answer these questions, because the little children in the home are continuously and very intimately associated with the mother, while the father is away busy with his trade or vocation. However, the children are very likely to come and sit on

the father's knee and ply him with the same question that they have just been asking mama, perhaps only a few hours before. Here is the father's opportunity to play the strong second to the mother. Knowing how the mother presents these matters to the children, he cannot do a wiser thing than to use almost the same words that the mother uses. Children are very exacting in verbal statements of things; and it will be most gratifying and satisfying to the children if the father uses the same words that the mother uses in expressing these same truths.

And so the children in the home are taught these great truths by the parents. When a child reaches the threshold of adolescence, there should be a parting of the ways for the girl and the boy. The mother cultivates a closer bond of comradeship and chumminess with her daughter as this daughter approaches adolescence; and in little heart to heart talks she prepares the daughter for her coming into womanhood, in a wise and tactful way, so that when the change really comes to the daughter, she is prepared for it; and if the mother has done her work wisely, the daughter is *really proud and happy in her new estate*.

But we are really discussing fatherhood rather than motherhood. The father's relation to his adolescent daughter, and a little later to his young lady daughter, should always be one of absolute and irreproachable chivalry and honour. It is unthinkable that any father, deserving the name of father, should ever, by any word or act, bring a blush of shame to his daughter's cheek. The father should always be considerate, gentle and affectionate with his daughter, yet there may be a robust good-fellowship between the two; but this good-fellowship should never relax to the point where the father for a moment forgets that his daughter is a woman, and, furthermore, that she is a woman whose purity of mind and chastity of person

are pearls of great price and of incalculable worth both to herself, her parents and her future husband and children.

The father's relation to his adolescent son is one which we may well discuss in somewhat greater detail. When the boy reaches his pre-adolescent period, it is his inherent right to have the guidance of his father's judgment and experience, and the inspiration of his father's personality. The boy at twelve and thirteen is a hero worshipper. He is living over again, in his own personal development, that stage which corresponds to our racial development when our primeval ancestors were living close to Nature, and every man in the tribe, or clan, bowed to the despotic will of the hero chieftain. Boys at this age are hero worshippers, instinctively and inherently. A study of the list of the boy's heroes shows that, without exception, they are all great fighters. David, the shepherd boy, who killed a bear, a lion and a giant, is very likely to head the list of the boy's heroes; then comes Alexander the Great, who sighed for more worlds to conquer; Cæsar, who crossed the Rubicon; Napoleon, who conquered Europe; Washington, who fathered our country; Grant, who never lost a battle; and recently the great hunter of "big game," and the champion of the "square deal" and the strenuous life—ROOSEVELT—fighters all, and *stalwart heroes of the race*. The boy at this stage seems to delight in war and bloodshed. He is very likely to have his father on his list of heroes. The loyal mother of the boy has been holding the father up before the boy's eyes on many occasions as the personification of everything that is honourable in business and square in politics. The father, incidentally himself, without any intent to magnify his own merits, may have told his boy about some of his youthful athletic exploits, how his home-run brought in the deciding score of a great ball game, or his touchdown decided a great football

contest. So the boy has his father listed among the world's heroes—perhaps at the bottom of the list, but he is there, and it means something to be *even at the bottom* of such a list as that—and there is nothing else to do but for the father to "*make good*" for his boy. Of course, he can make good very easily in business honesty and political square dealing; but it is only with some little sacrifice that he can make good in his athletics. He must get out with the boys. His Saturday afternoons perhaps he would have preferred to spend sitting on his back porch or walking in the park with the whole family, but that is not strenuous enough for his hero-worshipping boy. There is to be a ball game down in Jones's pasture. The father is asked to go. He realizes that it is up to him, so he goes. His son chooses him to play on his side, or adroitly so manœuvres that he gets father also chosen on the same side, he having full confidence that his father will enable their side to win an easy victory. As the father gets up to bat, and squares himself over the plate, the situation brings vividly to his mind the memory of the long ago that is like the whiff of powder in the nostrils of the war-horse. He makes good. He may not knock the ball over a hedge fence and lose it, as he did on that memorable occasion that his boy has heard about, but he knocks a safe grounder between short-stop and third base and gets safe to first, and finally makes the round of the bases and scores. From that day forth, the father has a hold upon his boy's affection that nothing can loosen, a place in his boy's confidence that nothing can disturb, an influence in his boy's life that nothing can exceed. Of course, he must follow this up. He must spend frequent Saturday afternoons with the fellows at their games. Perhaps he will soon be promoted to the position of umpire or referee, which will be somewhat less strenuous and no less appreci-

ated by the boys. As the months go by, the father will seek opportunities for heart to heart talks with his boy when they are alone. These opportunities may not come spontaneously; they may have to be arranged for at some little sacrifice on the part of the father. In a growing family of children, the boy in school, the father at his work, there are no opportunities during the day, no opportunities in the early morning, none in the evening, unless they are definitely arranged. Perhaps the most convenient time for the father to arrange hours with his boy will be an hour in the middle of Sunday afternoon. Of course, such an hour may interfere with a reading of the last twenty-four pages of the Sunday paper, or it may interfere with the Sunday afternoon nap that the father has enjoyed for a number of years, but a worse calamity can happen a family than for the father to fail to read these last twenty-four pages of the Sunday paper; a greater inconvenience can happen the father than to miss a few Sunday afternoon naps—for example, whole nights without sleep, while the father may be seeking his boy out on the streets wondering where his boy may be wandering at that time. So the father gladly makes these little sacrifices that are involved, and goes, perhaps not every Sunday, but very frequently, for a Sunday afternoon stroll with his boy. The wise father leads the boy far afield. If they are in a city, let them ride to the end of the car line, and then walk away out into the country. It would not be a bad plan for them occasionally to take a little lunch with them—a few slices of bacon, a couple of potatoes, some bread and butter—and, far out in the woods, perhaps on the gravelly banks of a brook or pond not in a wood or forest, to build a little camp-fire, roast their bacon and potatoes, and sit there and eat their frugal meal after the fashion of our primitive forefathers. Thus the boy is brought into close

communion with Nature, and his father is a part of it all. Such little hikes with father will be remembered as long as the boy lives. They will be treasured in his memory as among the dearest experiences of his life. The father will have opportunity on these occasions to talk very frankly with his boy on many subjects—his ambitions, his plans for life, and what he would like to be, the choosing of a life-work. The boy, perhaps, has advanced to his fourteenth or fifteenth year. He is in the midst of his high school course. They talk over the subjects of his course of study, and plan for his studies. Finally, on some occasion, the boy will ask his father something about manhood—what makes a man, or why some boys are manly and others are not. This is the question for which the father has been waiting for many weeks, perhaps. The father may even have adroitly and tactfully brought out the question by some story or remark. The father is not unprepared. He has his answer all ready. And there, perhaps under the spreading bows of a great primeval oak tree, the father reveals to the boy, in a very frank talk, *the secret of manhood*. He very briefly reviews for the boy some of the things that the boy has learned even before from his mother in answer to the questions of his early childhood. Then the father explains to the boy that presently he will come into manhood; that the manifestations of his coming into manhood will be his growth in stature and in musculature; and that the secret of this wonderful development from youth into manhood is to be found in the marvellous influence upon the body of a substance formed in the testicles. The father explains how this substance formed in the testicles is absorbed into the blood, passes in the venous stream of the blood up to the heart, thence out through the arteries to the muscles and brain and other active tissues of the body, there to exert

its marvellous influence on the youth's development. The father explains to his son how, as the months go by and he passes into his sixteenth or seventeenth year, the muscles become not only bulky, but hard, having attained the splendid tonicity that marks the muscle of the virile man. He explains to his boy how the same magical stimulant absorbed from the testicles is carried to the brain by the blood, and the young man begins to see visions, visions of great things out in the world to be done. He begins to be fired with ambition, an ambition to get out into the world and help to do these things.

He explains to his son that when he begins to see these visions and be fired with these ambitions, new light will come into his eyes, the kindled fires of virile manhood are shining there. The young man goes out into the world fired with the same spirit that fired the heart of young David, the giant killer; that spurred on young Alexander to the conquering of the world; that lashed Napoleon Bonaparte on from one victory to another; that inspired the great Washington to hold together his meagre army until independence was won. Fired with this spirit, the young man goes out to dare and to do; to dare to grapple with problems that have frustrated those who have preceded him, and to do his work with such impetuous zeal and such well-directed energy that he accomplishes things that have been looked upon as impossible.

When a father sees his son develop into this stalwart, magnificent young manhood, any sacrifices that he has made, incident to his fatherhood, pale into insignificance. As for compensation, the very sight of his broad-shouldered, deep-chested, courageous and alert son compensates him a thousand times over for every sacrifice he has made.

So the father leads his son from youth into manhood, and the obligations of fatherhood have been discharged.

PART III

WOMANHOOD

THE GIRL—THE WIFE—THE MOTHER

CHAPTER I

THE EVOLUTION OF LIFE

I. GENERAL BIOLOGY

WHEN animal life first appeared upon the earth in its simple one-celled form, it gave as little indication of the perfection of form which we see in animal life to-day, as the ovum of a human individual of the present time gives of the perfect child which at birth is launched upon life's journey.

Yet this simple life-form of the early ages carried on all the activities of life—eating, digesting, assimilating, excreting and moving—protecting itself, and lastly reproducing itself without the possession of a single organ, and progressed in its development with unerring instinct towards a definite end.

All of these activities, excepting one, are for the benefit of the individual who exercises them, and may be called *egoistic activities*, but the last and crowning effort, reproduction, is a personal sacrifice of the organism, but serves a higher purpose, the good of others, the perpetuation of the

race. This activity may, therefore, be called *altruistic* (for others) or *plyletic* (for the race).

EGOISTIC ACTIVITIES

As the term implies, egoistic efforts are directed towards the self (or ego), and include all those activities for the support, protection, defence and development of one's self. As illustrated in the plant organism, the taking of nourishment from the air and soil, the development of the stem, branches, roots and leaves are egoistic activities. In the lower animals, the eating, sleeping, fighting and building of shelter are all egoistic activities, while in man egoistic activities include the first act of taking nourishment from the mother; all the play activities by which Nature develops the nerves, muscles and special senses; a large part of the earning and preparing of food, clothing and shelter; the activities of school and college, which develop the points of youth, and even the pursuit of pleasure and recreation; the desire for the preservation of life is also instinctive. But there is one instinct as fundamental as these and still stronger, and that is the desire for the perpetuation of the race. For an individual will perpetuate the race even at the sacrifice of life.

ALTRUISTIC ACTIVITIES

As the etymology of this term suggests, these activities are devoted to the good of others. Herbert Spencer says: "If we define altruism as being all actions which in the normal course of things benefit others instead of benefiting self, then from the dawn of life, altruism has been no less essential than egoism." It is evident that altruistic activities include all activities devoted to the propagation, maintenance and protection of the race.

(a) REPRODUCTION. The most fundamental one of these activities is reproduction. Every normal living organism, whether plant or animal, possesses the power to reproduce its kind. Some plants produce spores and some produce seeds. The flower represents the reproductive organ of the plant, and its real object is to produce seed. Animals produce eggs from which the young develop either through a process of incubation outside of the maternal body or analogous process within the maternal body. In the latter case, the young are brought forth as living organisms.

(b) SUPPORT AND PROTECTION OF OFFSPRING. Whether we consider the plant-seed, the animal-egg or the new-born individual, in any case the parental organism must provide for the support and protection of the offspring during those stages of development when it is unable to support and protect itself.

The mother plant deposits in or about the seed, sufficient nourishment to supply all the needs of the young plant during the germinating period and until it is able to gain its own support from the soil and air. Consider the amount of food contained in a bean, or a pea, or a grain of corn, and remember how large a plant may grow from a seed planted in moist sawdust from which it gains no nourishment. Furthermore, plants protect their seeds by means of various seed envelopes (thick skin, husks, shells, burrs, etc.) against the cold and moisture of winter.

In a similar way, the young animal is supplied by its parents with nourishment. The young bird is incubated within the egg where a supply of nourishment is provided sufficient to develop the bones, muscles, nervous system, blood, glands and covering. This development is carried to a point that makes the bird able to take from the mother during the early weeks after its release from the shell, such nourishment as the mother may provide. In the meantime,

the birdling must be brooded and protected in the parental nest until it is able to provide for its own protection.

The young animal is in a similar way developed within the body of the maternal organism to a point where it is able to perform the principal functions of life. For weeks or months, or even years, according to the class of the animal, it must be supported and protected by its parents. The human young receives milk from its mother's breast and protection in its mother's arms during the first year, after which it continues to receive nourishment, clothing and protection under the parental roof for a period varying from eighteen to twenty years, or even longer.

(c) SUPPORT AND PROTECTION OF WEAKER MEMBERS OF SOCIETY. Young animals are supported and protected because they are unable to support and protect themselves. If they were not thus cared for, the race would become extinct. Now there are some individuals, orphans, for example, who have, through some accident, been deprived of their natural support and protection. If these weaker members of society, not yet able to support and protect themselves, were not provided for, they would perish and thus become lost to the race. From the time of primeval man to the present, these weaker individuals of society, who have been deprived of their natural protectors, have been cared for by the stronger members of society, and afforded such support and protection as they may need to make them independent. In a similar way, the sick and defective members of society are cared for by the strong. Thus we see that the building and maintenance of orphanages, hospitals, asylums and homes are activities that belong clearly to the altruistic group. The mother, the nurse, the doctor and the teacher are following altruistic professions. For, although they derive a support from the work, unless they keep before them the good of the

individual served, and subordinate the idea of financial remuneration, they fail in the work.

2. THE LAW OF COMPENSATION

Sacrifice and Compensation in Egoistic Activities

Why does man till the fields, fell the forest trees, or delve in the earth for minerals? Why does he cultivate domestic animals or build ships? These are all sacrifices that he makes, and apparently with willingness. If we study the problem closely, we see that he tills the fields and cultivates domestic animals for food; that he fells trees to make shelter; that he cultivates certain plants and animals to procure for himself clothing; that he delves in the earth to secure mineral products to use in various industries; and that he builds ships to widen the scope of his activities. It is evident then that the egoistic activities of an organism represent sacrifice followed by compensation. The individual sacrifices in order that he may reap his reward or receive his compensation. It may be stated as a general biological truth, that Nature demands sacrifice or work on the part of all living organisms; and, under normal conditions, metes out a compensation commensurate with the sacrifice made.

Sacrifice and Compensation in Altruistic Activities

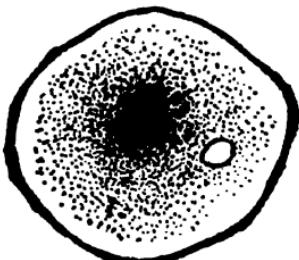
(a) LOWER ORGANISMS. If one watches an amœba under the microscope, he may see it move about the field, creeping along the surface of the glass plate, throwing out a pseudopodium or foot, here; drawing in the protoplasm to form a mouth or a stomach, there; taking in and digesting minute plant-organisms; transporting itself across the field of the microscope through the aid of improvised loco-

motory organs. These activities are all egoistic. The amœba is putting forth effort to gain sustenance; it is sacrificing energy to receive compensation in the form of support.

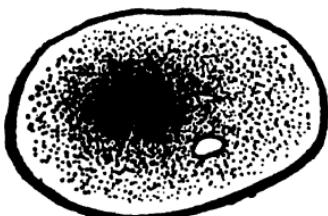
If we continue to watch this one-celled organism, we will find that sooner or later it goes into a short resting stage, followed by important internal changes. These changes make themselves manifest, first, at the nucleus, which slowly divides into two equal portions, separating each and carrying with it about half of the protoplasm of the parent. As these two young amœbæ lie side by side under the microscope, one naturally asks : " What has become of the parent organism? " Whereas at first there was one adult amœba, there are now two young amœba of the next succeeding generation. The parent organism has sacrificed its substance and its individual life absolutely and completely for this next generation.

It may be said in general that reproduction always involves a division of the parent organism. In the case of the amœba, the division is into two equal portions. In the case of some of the lower plants and animals, the substance of the parent organism is divided into many equal minute spores or eggs, each of which develops a new organism.

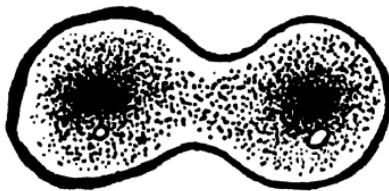
(b) HIGHER ORGANISMS. These higher organisms also suffer a division of their body protoplasm. However, instead of dividing into two or more equal parts, and merging their individuality immediately into the next generation, the higher organisms divide off a very small proportion of their protoplasm to make an egg or seed, while the parent organism lives on to produce eggs or seeds on subsequent occasions. While the parental sacrifice in eggs or spermatozoa is minute and inconsiderable in the higher animals, the sacrifices subsequent to this initial division are incalcul-



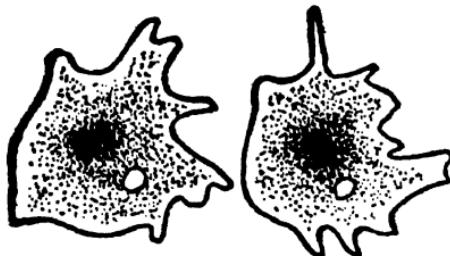
Parent Amoeba.



First Stage of
Reproduction.



Second Stage of
Reproduction.



Two "daughter"
Amoebae.

Reproduction in the Amoeba.

ably greater in higher animals than in the lower forms. We can cite no better example than the human subject. The human ovum divided off from the maternal organism is a minute globule of protoplasm, almost microscopic in size. The sacrifice of the mother in producing the ovum is inconsiderable, but the production of the ovum is simply the first step in the sacrifice which the mother makes.

The fertilized egg makes a lodgment on the inner surface of the uterus or womb, and begins immediately to absorb its nourishment from the mother. It soon develops heart and blood vessels so related to the blood vessels of the mother that throughout its prenatal life the mother's blood supplies to the growing child all the substance that is built up into bone, muscle, brain and glands, preparing the young child to come into the world, a living, breathing, sentient organism. These draughts upon the vitality of the mother are so great that they frequently result in a very noticeable depletion of the mother's physical power, noticeable particularly in the depletion of the blood.

During the period when the young child is developing within the body of the mother, she must make other sacrifices : the withdrawal from a society into the seclusion of the home where she spends many days in the preparation of the wardrobe for the expected child; the sacrifice of appearance and bodily comfort; and later the sacrifice of pain at the childbirth. During the first year of the child's life (if it has its birthright), it draws nourishment from the mother's breast—nourishment which the milk glands make from the mother's blood at a sacrifice of her strength.

During its childhood and youth, the mother prepares the food, clothing and shelter of her child at no small expense of her time and strength. For years, the mother holds herself ready to watch at the bedside of her child should it

fall sick, and there is hardly a mother in the land who has not spent many nights in such vigils by the bedside of her child.

All this is maternal sacrifice. Is there any sacrifice on the father's part? The father's first sacrifice in the division of a portion of his body is too small to be considered, but in his case, as in the case of the mother, the sacrifice continues through a period of fifteen, twenty or even thirty years sometimes, progressively increasing to the last. The sacrifices on the part of the father consist in the support and protection of the offspring, and should begin soon after conception on the part of the mother, when the prospective father, by abstaining from the conjugal relations, and by showing greater care and solicitude towards the mother, protects the coming child and promotes its welfare. The father feels with the mother the anxiety for the sick child and shares her vigils.

We have noted that egoistic sacrifices receive their compensation. Do the sacrifices which are made for others receive an adequate compensation? The compensation for the sacrifice of time, labour and rest is the pleasure of seeing a well-dressed, well-fed child in which the parents take pride, or in removing pain and restoring health to the child, and in the reciprocal love of the child.

Let any young woman ask her parents if they have been compensated for all the sacrifices they have made for her. If the daughter is one who brings pride and satisfaction, whose presence adds sunshine, and whose hand is helpful, the unhesitating reply would be, "Yes, compensated many times over." Ask a mother with little children clinging to her hands, if she is repaid for all the work. Straining the child to her bosom, she answers, "Oh, many times repaid," and yet the child can do nothing but *love*, and in this one thing lies the secret of adequate compensation. Love is

the fulfilling of the Law of Compensation. This principle of LOVE OF OFFSPRING seems to be a more or less general one in the whole realm of conscious, living Nature. That a tree could love its young, no one would suggest. That a star-fish could possess such a feeling, no one would be likely to contend. These organisms, while making both egoistic and altruistic sacrifices, are not conscious of them, and therefore receive no conscious compensation.

It seems probable that, if an animal is conscious of sacrifice, it is capable of being conscious of this compensation which we term *love of offspring*. For organisms, too low in the scale of life to be conscious of either sacrifice or love of offspring, Nature seems to have arranged another scale of sacrifices and compensations, the sacrifice taking the form of contention for possession of the mate, and sacrifice in her support and protection, the recompense being the physical gratification.

Physical gratification may enter to a certain extent, as a factor among higher animals, but the higher we get in the scale of animal life, the less the part played by the physical gratification, and the greater the part played by LOVE OF OFFSPRING. Where the family circle is maintained, or where the community life is highly developed, there may be another consideration at work, which may play a large part in compensating the sacrifices of reproduction. This consideration is the hope on the part of the parents that the offspring will provide support and protection to them when old age renders them unable longer to support and protect themselves.

It is not probable that this consideration plays any great part in determining the procreation in the first place, but that it later becomes a matter of importance, is not to be doubted.

These last-named considerations, however, belong to the

egoistic, whereas that of love belongs solely to the realm of the altruistic.

What compensation does the lower form of animals unconscious of sacrifice receive? The conscious sacrifice of higher animals receives a conscious recompense; similarly the unconscious sacrifice of lower organisms receives an unconscious compensation.

It will be remembered that the amoeba did not die, but that it *renewed its youth* in its offspring. In the next, and in every succeeding generation, there is no death, but a rejuvenation; in other words, *immortality*. These lower forms receive, in compensation for sacrifice of individual life, an immortality of their protoplasm. This principle of biology was first discovered and formulated by the great German biologist, Weissman.

The support of the weak and friendless, by strong members of society, is the most altruistic form of sacrifice, and has the highest form of reward, namely, the betterment of the society of which one forms a part, and the deep happiness which follows a consciously altruistic sacrifice.

SUMMARY

(a) The propagation of offspring, and the protection and support of the young and defenceless, always involve sacrifice on the part of the parents and the stronger members of the race.

(b) Sacrifice made consciously for the race is, in the natural order of things, compensated.

CHAPTER II

ADOLESCENCE

FROM a biological point of view, reproduction is the most important function of life. Were it not so, Nature would never accept the supreme sacrifice of life for the sake of the offspring.

It would seem probable that a function so far-reaching in its results, so important to the individual, and so vital to the race, would require time for the development, and would be most carefully guarded by Nature. Such is the case. There is an initial period called *puberty*, extending usually from the age of thirteen to the age of fifteen, during which time great changes take place in the whole being of the girl, all with a view to the making and perfecting of reproductive organs.

This period of puberty differs with race and climate, and varies among individuals of the same race and in the same climate. It can be unduly hastened by social excitement, the early reading of love stories and by highly seasoned foods.

The first menstruation does not mark the beginning of puberty, nor does it indicate that the girl is ready to fulfil her destiny in the reproductive act. At least a year, and often longer, before the first menstruation, the reproductive organs are growing, the child-form is modifying and the mental attitude is undergoing a definite change.

These pre-pubertal and pubertal years mark a crisis in girl life, and are the introduction to the period of adolescence, which extends to about the twenty-second year. These adolescent years are said to be "the grand court of appeal by which weak children are weeded out and only those who have sufficient vitality for life's battles renew their strength and continue their development." This quotation emphasizes the necessity for special care, wisdom and infinite patience towards the adolescent girl, who, with all the physical demands upon her, is also finding her real self and trying to adjust herself to the new point of view.

The first great sacrifice to the good of the race is offered when the girl, during her menstruation period, refrains from those amusements and occupations that interfere with this function. She feels the sacrifice much less if she understands the *great plan of Nature* and anticipates the compensation. If a girl looks upon this vital function as a disgrace and an annoyance, she will not guard it as she would a *sacred gift* which might some day place upon her head the *crown of womanhood*.

PHYSICAL CHANGES

The human being belongs to mammals, and as a member of that class he has, covering his surface, except on the palms of the hands and soles of the feet, hair follicles which produce the hairy covering of mammals. The distribution of hair upon the human being is the same as that upon an anthropoid ape. Every child comes into the world with a coat of rudimentary hair which is shed at once. At the age of puberty, however, the growth of hair is increased over the whole surface, but especially in the arm-pits and over the pubic region. This is a law of biology, that at the

pubertal age, this hairy character of mammals becomes prominent, hence the name puberty.

BONE, MUSCLE AND GLAND. Of far greater importance than the last-named indication, is the rapid growth in height that begins about the thirteenth year, and is usually completed by the fifteenth year. This increase in height is largely due to a lengthening of the thigh and leg bones. There is a corresponding lengthening of arms, and we find the girl is outgrowing her clothes and reaching the stage when her most prominent characteristic is length of leg. The muscles, unable to keep pace with the bone growth, become flabby. It is difficult for the girl to hold her back straight and her shoulders up. She becomes awkward and easily fatigued because of this muscle condition. But the rapidly developing muscles soon regain their volume and tone, filling out the form and giving the roundness of figure indicative of womanhood. The breasts develop glandular tissues, increase gradually in size, and become tender to the touch. Nature is building an apparatus for supplying the future offspring with food.

This increase in muscle and glands can be accomplished only by increased activity of the nutritive processes. The normal girl's appetite is practically insatiable. To accomplish the digestion and absorption of this food material, the alimentary tract, particularly the stomach, is greatly increased in size. To distribute this increased amount of food (blood), the heart also is increased in size and strength. With greater bulk of muscle and increased quantity of food, we have increased oxidation in the tissues. This requires increased respiration, a demand which is satisfied by the rapid growth and development of the respiratory system. The thorax increases in all directions, becoming deeper, broader and longer; the abdominal cavity becomes greater by the broadening of the pelvic arch.

Nature is preparing the girl for an important event; building a room in which a new life may later pass through all the changes from the one-celled egg (ovum) to the perfect child, and receive its nourishment from the mother's body.

THE REPRODUCTIVE ORGANS. The ovaries, up to the age of puberty, consist of a smoothly lined, oval-shaped organ without any function. At this age, these organs increase in size, then develop and eject eggs. The uterus increases greatly in size, and becomes able to carry on the construction of a new individual.

While the girl of thirteen, who has menstruated, is capable of becoming impregnated and of bearing a child, she is by no means physically ready to perform this function for five years to come, and better for her and the child if it be seven. The organs have not yet matured, either in size or in strength.

PSYCHICAL CHANGES

The period of adolescence brings psychical changes as marked as the physical ones. It is a time of mental awakening; of the birth of new emotions, hopes, doubts, fears and passions; a time of impulse and independence, and therefore the time when most of the great things in literature, art and music have been accomplished, when the greatest religious zeal is shown, and the most altruistic views are advanced. If these powers are perverted, they result in such lives as we have all seen—self-conscious, vain, imaginative, dreamy, love-sick and impetuous by turn, in fact, unbalanced lives that are sometimes sacrificed at an early age.

ANCESTRAL TRAITS develop at this time—psychical perhaps as much as physical—and new mental and moral

peculiarities become evident. "It is the final struggle and opportunity to establish the type." The traits of both parents seem to be warring together for ascendancy, and the girl is torn with conflicting emotions which she does not recognize as belonging to her.

Doubt comes in as one of the strongest emotions of the early adolescent period. Doubt regarding things that have up to this time been taken for granted; doubt regarding the soundness of their elders' advice; doubt regarding religious matters. This doubt serves a wonderful purpose, for it drives the young woman to study, to investigate and to prove truth for herself.

Parents would do well to regard this doubting leniently, and to remember: "Doubt need not be sin; doubt is only faith finding its way." It is a time for parent and child to reason together, but not a time for sarcasm or superiority.

The adolescent is not content to accept statements until they have been proved. This is, as Dr. Burnham puts it, "a natural healthy form of intellectual activity."

RELIGION. As intimated above, the girl at thirteen first perceives her relation to society, and feels the necessity of proving all things and holding fast only to that which she deems good. She feels inefficient, feels doubtful of the future, is reticent towards those nearest to her. All of these things drive her to find other companions and to look for some superior being who is all powerful, all wise, and can be a counsellor in secret. She worships the beautiful. This is naturally the time of religious awakening, the time when a girl, feeling the birth of a new physical nature and the expansion of mental power, feels too the reverence for Nature and Nature's God, feels the soul's awakening and divines her relation to a future life.

Fortunate that girl who can freely discuss these important questions with some wise person who will patiently

answer her questions, give respect to her doubts, and help her to find the light which always shines on truth. It is pre-eminently the time for a religious experience. For here one reaches the parting of the ways.

The proportion of people who become professing Christians after the twenty-fifth year is comparatively small.

SOCIETY. The girl who has always looked upon her boy friends as unemotionally as upon her girl friends, and who, up to the twelfth or thirteenth year has been careless of her appearance, now begins to be ill at ease and conscious in the presence of the opposite sex, and seeks to adorn her person that she may be attractive. Her interest in reading matter changes. She now wants stories of young people who are treading the path she is following, but who are farther along. She devours love stories, and imagines herself the heroine. If these books be chosen by an older person who sympathizes with this normal longing for life in its relation to society, and if the books have literary value and be high in moral tone, they will do much to establish high ideals and form fine character. What could be more unfortunate than the forming of low or mean ideals at this important juncture?

Every girl should have *one inviolable rule* of relation to men—"Hands off!" No girl should allow boy or man, other than her brother, father or fiance, to kiss or embrace her in any way. For a girl to allow a boy or man to put his arm about her is worse than foolish; it is letting down the bars and leads to all sorts of licence. A man may have ungovernable passions aroused by such licence, and may under such stimulus do that which would never occur to him otherwise, and which both may regret for a lifetime. "Hands off" is the *only safe rule of action* for both sexes. Even engaged couples should indulge in few caresses and allow *no liberties*. It is the only safe way. The greatest

objection to round dancing lies in the close proximity it permits two individuals of opposite sex whose passions are excitable. Girls who value the virtue of their young men friends would better at least refrain from wearing the low-cut bodice which exposes so much of the person. It is a sad fact that many a young man goes from the social dance, which he has enjoyed with his innocent girl friends, to her unfortunate sister whom she does not recognize, but who satisfies the passion which she has aroused.

CHAPTER III

ANATOMY AND PHYSIOLOGY OF THE PELVIC ORGANS

I. ANATOMY

(a) THE PELVIC ARCH

THE pelvic arch, or the pelvic girdle, as it is called, is the bony framework of the lower part of the body, and corresponds to the shoulder girdle of the upper part of the body. The pelvic girdle is composed of three bones, the two innominate bones and the sacrum. The sacrum is a wedge-shaped bone made up of five vertebræ fused together, and being a part of the vertebral column, is naturally located in the back of the body and in the middle line. The innominate bones are inarticulated with the sacrum on either side in an immovable joint. These innominate bones—also called hip bones—present two broad surfaces at each side of the hip, to which are attached on the outside the heavy gluteal muscles which form the seat. The upper edge of the hip bones present a bony ridge, more or less prominent, which may be felt through the skin and subcutaneous tissues. The inner surface of the innominate bones spreading from below upward, make, along with the sacrum, a basin-shaped and nearly circular bony foundation for the structures which rest upon it.

The two innominate bones meet in the middle line, in front, in an immovable articulation (the *symphysis pubis*).

Articulated with the lower end of the sacrum is the coccyx. This is simply a chain of three rudimentary vertebræ, the last trace, in the human subject, of a very important organ in lower animals—the tail.

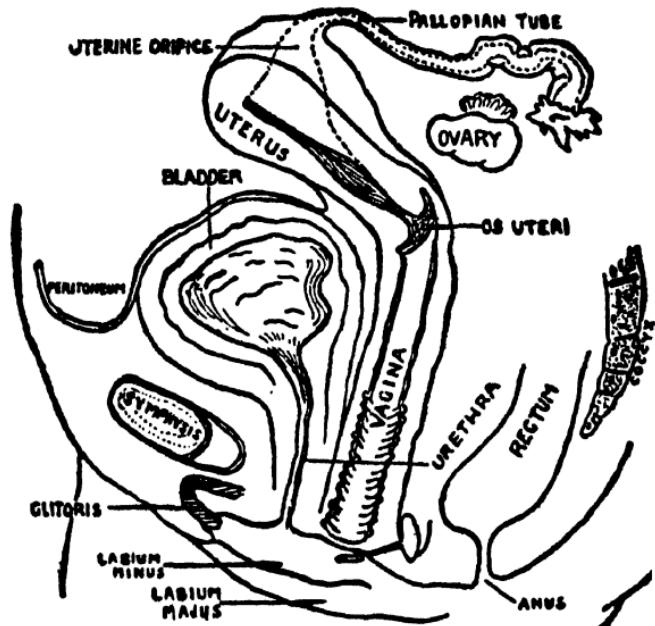
(b) THE OVARIES

The ovaries of the female correspond to the testicles of the male, and are the sexual glands, that is, the glands which form the sexual cells or ova. The ovaries, like the testicles, are formed in the abdominal cavity in a position considerably higher up in the embryo than they are located in the adult. At about the time of birth, the ovaries pass down to a position in the upper part of the pelvis, which they are to occupy throughout life. The ovary is about the size of a pigeon's egg, in the adult woman, and is glandular in its structure. It differs, however, very greatly from the glands with which we are most familiar. The salivary glands, for example, are made up of numerous tubules, and the secretion of these glands is poured out into the mouth cavity. The ovary, on the other hand, has no tubules in its structure. Its secretion may be subdivided into two general parts, namely, the external and the internal, whose nature will be described in the following sections under "Physiology."

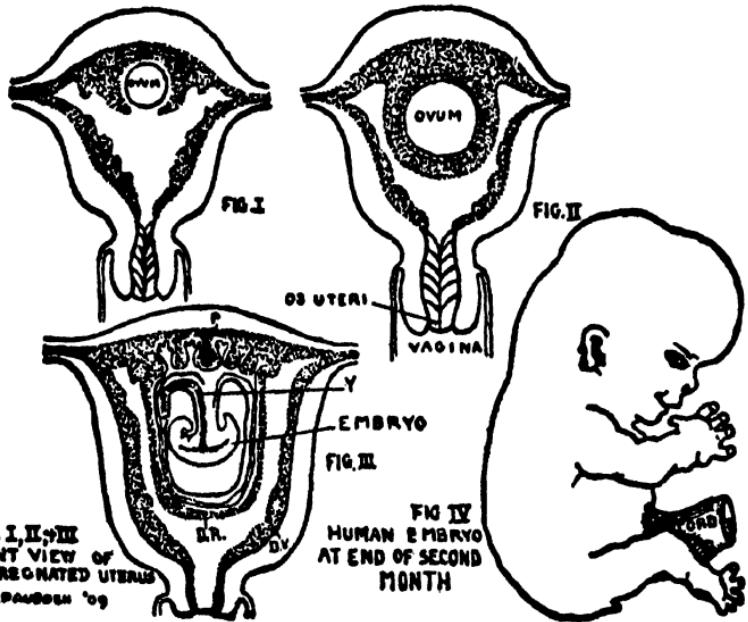
When the ovaries take their normal position in the pelvis, they are more or less enclosed within the fringed extremities of the Fallopian tubes. These tubes, first described by the anatomist, Fallopius, extend from the uterus, one on either side, out to and enclosing the ovary of that side.

(c) THE UTERUS

The uterus or womb is located in the middle line, and consists of the body and the two Fallopian tubes mentioned



THE FEMALE ORGANS OF GENERATION



above. The body of the uterus is two and half to three inches in length, and an inch and a half to an inch and three-quarters in width, seven-eighths to an inch in thickness, and in a general way pear-shaped, with the smaller end down. The uterus is a muscular organ with heavy muscular walls. The cavity of the uterus is in a general way triangular, the base of the triangle being in the fundus of the uterus, and the apex at the neck. From each upper angle of the cavity is an opening which leads into the Fallopian tube of that side. From the lower angle is an opening which leads through the neck of the uterus to its mouth or os. The whole cavity of the uterus, also the Fallopian tubes and the neck, are lined with mucous membrane which is very velvety in its texture.

The broad ligaments hold the uterus in position, in the middle of the pelvis between the bladder and the rectum. As this ligament is a thin fold of tissue, it may become stretched, and thus permit the uterus to be thrown out of its normal position; as the stretching of the ligaments takes place symmetrically as a rule, the displacing of the uterus naturally can either be forward or backward in the middle line. It may also be displaced downward towards the opening of the cavity. This latter displacement is called a "prolapse." The reason for these displacements is that this organ is in position to receive the weight of the organs of the abdominal cavity. Because of this, if the tissues for any reason lose tonicity, they become stretched and permit the displacement.

(d) THE VAGINA

This term, meaning sheath, is applied to the channel or wide canal which passes from the mouth of the womb to the external organs. While this canal seems to be open,

it is not really open, but is unsymmetrical in shape—the front and back walls coming together. This organ is more capacious at the upper end where it surrounds the uterus than at its external opening. The folds into which its walls are thrown are called rugæ, and are Nature's provision to permit a ready stretching of the vagina to an extent sufficient to allow the passage of the child's body at birth. The external end of the vagina is somewhat contracted, and in the virgin is partly closed by a fold of membrane called the hymen or "maiden head," which extends forward from the posterior wall of the opening. This thin membrane is usually ruptured at the time of the first sexual intercourse. For that reason, it has been looked upon as a mark of virginity. Just in front of the opening of the vagina is the exit from the bladder, or in other words, the opening of the urethra. Just in front of this opening of the urethra is the organ which corresponds to the male copulative organ. It is called the clitoris. This organ is partly enclosed by the prepuce which merges backward into the thin inner lips (the labia minora). Outside of these thin inner lips are the thick outer lips (the labia majora). At the age of puberty, the outer lips and the prominence above and in front (the mons veneris) become covered with a growth of hair.

II. PHYSIOLOGY

(a) EXTERNAL SECRETION

Ovulation is a term applied to the process of forming and maturing eggs. In the human female this process begins at the beginning of puberty and continues at more or less regular intervals until the menopause, which occurs in the middle or latter forties. The period of ovulation and menstruation occurs in the perfectly normal case about once every twenty-eight days, so that during a calendar

year there are thirteen periods during which ovulation and menstruation occur.

In this process of ovulation, an ovum matures on the surface of each ovary within a follicle called the Graafian follicle. This follicle bursts when it matures and permits the escape of the ovum from the ovary. This ovum, almost too minute to be seen by the unaided eye, usually passes into the Fallopian tubes along which it is carried by minute cilia or hairlike projections of the cells, which by a wavelike motion carry it along the tube towards the uterus, into which it gradually makes its way and through which it is usually carried along with secretions from the mucous membrane of the uterus.

The term menstruation is applied to the monthly flow of blood and mucus from the uterus. Menstruation and ovulation usually occur at practically the same time, though this is not necessarily always true.

If there has been a deposit of male germ cells or spermatozoa in the vagina just before or during the passage of the ovum or egg through the uterus, these spermatozoa are likely to find the egg in the uterus and fertilize it. This fertilization of the egg in the uterus is the beginning of a condition which is called pregnancy, which condition after about nine calendar months, or to be more exact, ten menstrual months, leads to the birth of a child.

Inasmuch as a detailed account of this process is to appear in the next chapter, we will here consider especially the internal secretion from the ovaries.

(b) INTERNAL SECRETION

Reference has been made above to the formation of ova or eggs within the Graafian follicles and their passage outward through the uterus. This function of the ovary

is called the external secretion, but the ovary possesses another most important function, namely, the formation of an internal secretion. The external secretion from the ovary begins at about the thirteenth year in the girl, as explained above under adolescence. At the same time that the ovary begins to prepare eggs and to expel them periodically, it begins to prepare the internal secretion. This substance is so called because it is taken up by the blood, and therefore passes *into* the body instead of *out* of the body.

It is only in recent years that the medical profession has known anything about internal secretions. We have known for ages that the castration of male animals profoundly influenced their development, but it is only recently that we have known the cause of this profound modification of the development. Researches made in several of the laboratories of Europe have demonstrated that the testicles of the male and the ovaries of the female form a substance which, getting into the blood, is carried by that fluid to all parts of the body, where it exerts a magical influence on the development of the adolescent individual.

If, of two males of the cattle kind, one were castrated at the age of twelve to thirteen months, the natural one would grow into a great, strong, hard-muscled, fiery-eyed, alert, belligerent bull, while the castrated one would grow into a patient, meek beast of burden—an ox.

If, of two females of the cattle kind, one were to be subjected to a surgical operation in which the ovaries were removed, that one would grow up into a patient, meek beast of burden—an ox—while the natural one would grow up into the typical female of its kind, the cow, possessed of all the fine qualities which mark typical femininity.

In order that a female of any kind shall develop those

splendid qualities of femininity which all the world admires, it is necessary that she receive from her ovaries during all the years of her development, this *magical something—the internal secretion* which passes from the ovaries through the blood to the developing tissues of the body.

Even without the removal of the ovaries, a girl of thirteen or fourteen may produce an unfortunate modification of her development. Nature's plan for the development of her splendid qualities of radiant young womanhood may be defeated, if she habitually plays with these organs. This act is usually called "self-abuse," because it is universally recognized as an abuse of the organs and a diversion of their function from the normal.

This destructive and loathsome habit of self-abuse is occasionally acquired by girls quite accidentally, induced by a local irritation of their organ through irritating secretions. Occasionally it is learned from older, low-minded, vulgar girls who seem to delight in teaching their own bad habits to younger girls.

Whether this habit is learned accidentally or through evil associations, it is in every case not only subversive of Nature's plan for the development of the girl into beautiful womanhood, but it also serves as a serious shock to her nervous system, and *if persisted in, will cause a wreck of that system.*

Fortunately, the number of girls who learn this habit, make up a very small proportion of girls in general. As a rule, girls are pure and high-minded.

If a girl has been so unfortunate as to have acquired this habit, she will be encouraged to know that *all that Nature requires of her is to quit the habit absolutely.* Nature will then come to her rescue, and within a few months, or at least two or three years, will completely rehabilitate her radiant young womanhood.

CHAPTER IV

MENSTRUATION

OVULATION. Upon the approach of puberty, the smooth lining of the ovaries takes on a different appearance, and instead of growing uniformly as before, some vesicles of this lining make a more rapid growth than others, and finally, one more active than the rest develops to the size of a hazelnut, and forces its way through the layer of which it forms a part, to the surface lining. By this time this very active vesicle has grown so large that its walls burst and liberate an ovum (egg), ejecting it into the Fallopian tube. It is carried in the tube to the uterus by a current of fluid, the fluid being kept in motion by tiny hairs, or cilia, which line the tube, and by the contraction of the tube itself. If, by chance, the egg (ovum), when expelled, does not enter the Fallopian tube, it becomes lost in the abdominal cavity. The journey of the egg from the ovary to the uterus occupies from seven to fifteen days. Ovulation, or the discharge of an egg, may or may not be coincident with menstruation. However, ovulation begins with menstruation and ends when individuals cease to menstruate (the menopause). The two ovaries supply the eggs alternately.

MENSTRUATION PROPER. Menstruation is a periodic discharge of blood from the uterus and the Fallopian tubes. It occurs every twenty-eight days, continues through three to six days and lasts during a woman's child-bearing period or about thirty years.

MENSTRUAL STAGES

Each menstruation seems to present four stages which follow each other in regular order. Marshall names them, *constructive, destructive, reparative and quiescent*.

1.—*The Constructive Stage.* This is the preparatory period during which time the uterus is made ready for the reception of the ovum by a swelling of the inner mucous membrane caused by the filling up of the veins and capillaries with blood. Just why this happens nobody knows, but the swelling is so marked that the membrane becomes two or three times its usual thickness. The mucous membrane becomes thick, swollen, dark in colour and very soft. Some of the blood passes through the walls of the blood vessels and some escapes by the bursting of capillaries; this passes out together with epithelial cells and continues about a week.

2.—*The Destructive Stage.* The active part of the constructive stage merges directly into this second or destructive stage, during which time the degenerated material is carried off and brings about the menstrual flow continuing five days and merging into the third stage.

3.—*The Reparative Stage* sets in to repair the tissue broken down by the previous stages. This is done by a process of growth from below and continues for about four days followed by the fourth or last stage.

4.—*The Quiescent Stage.* This is the name given to the period of rest which occupies the remaining twelve or fourteen days of the monthly cycle.

THE THEORY OF MENSTRUATION. Just what causes this flow is not definitely decided, but it seems certain that there is a relation between ovulation and menstruation; indeed Jewett considers ovulation the direct cause of men-

stuation, while Pfluger considers that ovulation and menstruation are both brought about by the same cause (the congestion above described), yet independent of each other. Certainly, the thickening of the uterus wall is a preparation for the reception of the fertilized ovum. And when the egg becomes fertilized, pregnancy follows, and the flow does not occur.

Inasmuch as the uterus during the constructive stage is best prepared to receive the egg, it must be for the egg of a previous discharge, for it requires a week or more for the egg to pass from the ovary to the uterus.

THE FIRST APPEARANCE OF MENSTRUATION. The menses do not usually make a sudden appearance, but are prefaced by a time of monthly swelling and tenderness of the breasts, a feeling of lassitude often accompanied by a white mucus discharge. It may be several months after the first symptoms before there is an actual flow, which may even then be irregular, appearing one month and failing for several, then reappearing. After the thorough establishment of the function, however, its failure to appear marks either pregnancy or ill health. The preliminary symptoms may occur as early as the tenth year, and the menses proper appear between the ages of twelve and sixteen. Although there are cases of earlier menses, and of menses delayed even as late as the twentieth year.

Menstrual Symptoms: Menstruation is accompanied by certain local and reflex symptoms. For one or two days before the menstruation, the individual feels a special sensitiveness and nervous excitation accompanied by a feeling of fullness in the abdomen. These symptoms are all relieved by the beginning of the flow.

During the first few days of the period, girls, and women too, are likely to be over-sensitive to slights as well as to work and worry, and are somewhat mentally

depressed. The skin shows a tendency to discoloration, and may break out into pimples or fever sores. Owing to the increased weight of the uterus, a feeling of weight may be experienced in the abdomen.

Character of Discharge: The first discharge is composed of blood, mixed with mucus (which gives it a slimy consistency), epithelial cells and a granular discharge possessing a strong odour. During the second stage, the blood is almost pure and bright in colour, while the third stage is marked by a smaller amount of pure blood, a reappearance of mucus, but no epithelial cells. Menstrual blood should not clot.

Quantity of Discharge: It is estimated that the discharge amounts to from five to seven ounces. The more common way of measuring is, however, by the number of napkins used; physicians considering more than three napkins a day, excessive. The discharge usually lasts from three to six days, varying with the individual, but the greatest amount of blood is lost during the first three days.

The Relation of Menstruation to Lactation: During the congestive period of menstruation (just before the flow begins), a change is sometimes noticed in the breast glands of women who have not borne children. The nipple becomes erected and congested, secreting a yellowish discharge, the area surrounding the aureole darkens and the veins become prominent. Frequently the condition is scarcely to be distinguished from the breasts of a pregnant woman during the first three months. About the sixth month after the first childbirth, menstruation is usually re-established, eight or twelve months after the second childbirth, and seldom occurs during the nursing period of the third child.

HYGIENE OF MENSTRUATION

(a) PHYSICAL: This function of menstruation is a perfectly normal one and should be performed with little disturbance to the individual. The organs are, however, gorged with blood, producing a feeling of pressure and the nervous system is sensitive. But a state of nervousness is not natural, and when a girl becomes so affected, it shows that her nervous system is being either overtaxed or irritated, or it may be that her body is inefficiently nourished.

For thirty or more years of a woman's life, her health depends largely upon the proper functioning of the reproductive organs. It is, therefore, of the greatest importance to allow them free growth and to keep them in perfect health.

Habits: From their earliest years, children should be taught to avoid touching these tender parts of the body. If a child shows a tendency to manipulate the organs, have an examination made to see if there is an adhesion, for either boys or girls may need the help of a surgeon to relieve this condition. If this is not the case, but the condition still obtains, wash the parts frequently and carefully, to remove any collection of secretions, and then try to break the habit before the age of puberty. The mother and daughter should have many plain talks on purity of living. It is not necessary yet to disclose to the girl, sin and its consequences, beyond the fact that these delicate organs are injured by handling; that they should never be exposed nor used for any but Nature's excretory process.

Little children, like other little animals, have all the primordial instincts of the race and will sometimes quite innocently be led into bad habits by suggestion of some

"knowing" child. Because of this, children need oversight in their play; need to play in the open, and would better play principally with children of their own sex, excepting in the family where little boys and girls may not only play together, but may see each other undressed for the bath and so overcome a natural tendency to curiosity.

Keep the girl's body and mind pure and innocent until the pubertal period, and then give her the high and noble view of womanhood; tell her of her destiny, and the sacredness of these developing functions, and the necessity of keeping them sacred to their destined use. Never allow any frivolous references to be made to this function, nor any light remarks to be made regarding maternity, for all the teaching that can be given regarding its sacredness will not eradicate the impression of one ridiculing or slighting remark.

Exercise for an Adolescent Girl: All heavy exercise should be omitted during the menstrual week. Gymnasium and tennis dropped entirely, work should be lightened, heavy sweeping and machine sewing should be avoided, and the daily walk shortened. The feet should be well protected from cold or dampness. Sleigh rides, skating and dancing parties should be relegated to some other period. Nor should whole baths be indulged in. Local application of water sufficient for daily cleansing is far more hygienic than a bath during the period. An abundance of fresh air is frequently a panacea for the headache and depression.

Sleep and Rest: An extra amount of sleep seems to be demanded by Nature during menstruation, and a girl should not only retire earlier at this time, but ought to stay out of school from one to three days as the case may be, resting the mind and taking extra hours of rest and

sleep. The time lost will be compensated by the added vigour acquired through the hygienic treatment of the menses.

Educators attribute the breaking down of high school girls, not to the amount of work done, but to the strain upon a girl's system caused by carrying on full work during the menstrual period. Girls should be allowed to be absent two days of every month without making up hours. It is possible for a girl to study hard right through this period, and show no immediate ill effects from it, but it is likely to show later. For if the nourishment is all called off from the reproductive organs to furnish brain supply and general systematic needs, there sometimes (indeed often) results an atrophied condition of the reproductive organs, and we have a woman who bears few or no children and cannot nurse them, or one who has delicate health through life. For "if the reproductive machinery is not manufactured during adolescence, it will not be later."

Clothing: The feet and lower limbs should be warmly clad; slippers and thin-soled shoes should be replaced by warm boots, and all clothing should be loose and free from dragging on the pelvis.

(b) *MENTAL HYGIENE:* The irritability which accompanies the period should go unnoticed by other members of the family, and any specially irritating circumstances or conversation should be eliminated. The mind might well be kept upon happy topics and enjoyable reading. The girl should be taught that *the condition is not one of sickness but of health.* The thought that, when setting aside the strenuous life for a time, she rests for future good, will be of great value to a girl.

THE MENOPAUSE: The period of menstruation extends over about thirty years, the menopause occurring between forty-five and fifty. Women who menstruate early, reach

the menopause late, while those who begin to menstruate late, are likely to cease early.

The cessation, like the beginning of menstruation, is in general a gradual change. The first symptom of the menopause is irregularity. The flow may cease for a few months, and be followed by months of regularity and another cessation. This irregularity may extend over a few months or even as long as two years. Sometimes there is an excessive flow for months previous to the closing.

The most marked symptoms of the menopause are the accompanying congestions of other than the genital organs, namely, the head, liver and lungs. Women complain of dizziness, flashes of heat and mental depression.

When menstruation was first established, the girl became self-centred, she looked upon everything in all Nature with regard to its relation to herself (the centre); with the menopause, this prominence of the ego is again manifest. If a woman for the first time in her married life begins to doubt her husband's affection, or to suspect her friends, let her bear in mind the fact that she is distorting things, and that it is probable that her point of view is to blame, and that there is really no change in her friends or her husband. Married people who have lived happily together for years, sometimes become estranged during this *time when the woman is abnormal and the man does not understand*.

It seems a pity that men cannot know how much forbearance a woman needs while passing through this Valley of Depression, and that women cannot realize that their suspicions are unfounded, and their viewpoint distorted. Here again, a great faith in God that all is well, will remove mountains of distrust and anxiety, and submerge them in the sea of oblivion. As the preponderance of the ego or self idea causes so much of one's mental discomfort, the antidote is to keep the mind actively employed for

others. Take up some project which is absorbing in interest, but not overtaxing to the body, and whenever self intrudes, set aside the thought with a will, and then forget.

The tendency to accumulate fat after the menopause is marked, but it may in most cases be prevented by restricting the amount of food. Lessen the quantity of food at each meal, or the number of meals, and decrease the amount of sugar and starch, for the system seems to require less food when there is no longer a monthly drain upon the system, and to be less able to use up the fuel foods. Two or three years of self-denial in the matter of food, will leave a woman light of weight and young in mind and body, able to engage in years of useful activity.

With the cessation of the flow, there is an atrophy of the genital organs. First, the ovaries, then the uterus, shrivel, and sometimes disappear altogether, the breasts decrease in size, and the individual loses those physical characteristics which are essentially feminine and maternal.

CHAPTER V

THE UNMARRIED WOMAN

THERE are girls who plan a "career," and do not look forward to marriage, but most girls hope that they will form an alliance with the man of their choice and enter upon wifehood.

For one reason or another, however, many do not marry, and must plan another vocation in life. This course, while it does relieve a woman of the duties of motherhood, has also many difficult phases and problems not easy to solve.

WOMAN'S WORK. In almost every feminine heart there lies the germ of mother-love, and association with children has the power to keep hearts young. To really live with children and enter into their interests is to partake of their nature.

An occupation, therefore, which associates an unmarried woman with children (housekeeper, teacher, nurse, matron, aunt in the family, governess or mother's helper), develops her maternal side, satisfies in a measure her love for children, and enables her to carry out her destiny in part as she impresses her characteristics upon the young of the next generation.

In exchange for this gain, she must sacrifice a part of her leisure, and often her rest, but she receives in return, the best of all compensations, reciprocated love.

Unmarried women almost universally regret their

inability to have children of their own, or even to have children by adoption, because of home conditions, or question of support.

There are, however, many children who may be enjoyed and who will give love in return, if the unmarried woman is willing to make the sacrifice of time, of convenience, of plans, of habits. Children, being alive, make noise; being happy, play and disarrange things; being thoughtless, forget to put things away; but the extra work which children entail is well spent for it keeps one young and sympathetic.

To those who cannot take up these lines of work, there is the Sunday School class, and the sewing school class, or the opportunity may lie with the children of a neighbour, a friend or a relative. Tired mothers would for ever bless the woman who occasionally relieved them of their responsibility for an hour or an afternoon, and children are the sworn friends of anyone who gives them a good time; moreover it keeps a woman from growing cynical and selfish. *In thought for others lies the hope of health and happiness.*

SENSE AND SOUL. Sex subjects are not good things to dwell upon. Desire is more psychical than physical, and can be produced or allayed by the thoughts. "We are the sum of our thoughts." Sex desires cannot be subdued by trying to analyse the sensation, but by holding the thought upon some intense subject, by reading some absorbing book, or at night by fixing the mind upon a text and analysing it. It is of great help to try to grasp the idea of omnipresence, omnipotence, omniscience in God, and of divinity and immortality in man. These thoughts expanded and worked out in detail are big enough to dispel all other thoughts, and one is enabled to grasp the truth that she is soul, not body, and that every desire of the body may be governed by the soul.

MENTAL GROWTH. The unmarried woman ought to interest herself in literature, in club work or in philanthropy, to broaden her outlook and to prevent ever becoming an "old maid." Old maidism is a quality, not a condition, and is not confined to unmarried women. It is acquired by being opinionated in sentiments, absorbed in trivialities and centred in self, and is for ever banished from the woman who, taking hold of her place in life with a firm hand, lives with a definite purpose to become a part of the life about her. To this woman, universal motherhood is possible.

The menopause is a trying time to the unmarried woman. She feels that her youth has slipped away, and with it the dreams of home and family, and she may be inclined to rail at fate for depriving her of a woman's right. It being a time of introspection, she is tempted to indulge in thoughts of self and loneliness, and succumb to depression, and only a stern determination to rise above egoism, and attain to altruism will give her the poise which she needs.

To dwell upon the unattainable with regret is but to invite unhappiness, while to accept the inevitable with philosophy is to secure happiness. To look for truth and grow up to it; to look for opportunity and grasp it; to look for love and find it; this is the privilege of the unmarried woman.

CHAPTER VI

THE WIFE

GIRLS or young women are by nature drawn to the society of young men. It is right that they should have this privilege, and any condition which robs either sex of the companionship of the other is abnormal. The choice of these companions is a matter for great care. If the young woman numbers among her acquaintances no young man whose standards command her respect, she would better go unattended and without escort than to accept the attention of unworthy men.

A girl cannot afford to lower her own self-respect or lay herself open to insult. The power to enforce the single standard of morals—the white life for two—lies in the hands of young women who must for ever lay aside the thought that a young man who “has seen life” and “sowed wild oats” is safe company, an eligible partner or a desirable husband. As she has kept herself pure and unspotted from the world; as she has never allowed the caress or the kiss of any man, *she may well demand the same of him*, and when she chooses her life companion, let her see to it that he is bringing to her what he demands of her, namely, purity.

The girl in her relation to young men must so comport herself as to command their respect, for while young men will be free with girls, if permitted, will take advantage,

if allowed, and will apparently enjoy the society of such girls, no self-respecting girl would enjoy the remarks which these same young men make regarding them when they are in the presence of other young men.

When the time comes that a man offers a woman the highest and best he has to give, and chooses her from among all his friends to be his mate, it is not a matter to be lightly considered nor treated as a joke. It will be well to think before the answer is given. Will he make a good husband? Will he make a good father? Will he be the kind of man to whom children may look for a good example? Is he worthy of love? Here, too, love is the fulfilling of the law. Marriage is Nature's plan, the family is the foundation of society, but the failure or success of married life depends not upon the institution of marriage, but first upon the choice of companion made, and afterwards upon the forbearance and good sense exercised. That there are so many truly happy married people, and so many delightful homes, proves the possibility of living happily and building many more such homes.

THE CHOICE. Having made the choice of a husband, what is the right deportment between an affianced pair? If the engagement is to be a long one, the meetings should be infrequent. In any case, there should be a very limited amount of caressing even after the engagement. If it is desired to retain the affection, and to receive the most good from the relation, self-denial must be exercised. Caressing leads to dissatisfaction or danger. It does a girl no good, and it makes the man's battle for purity a harder one to fight. Many a girl's downfall has come through this avenue of fondling between engaged people, and many a man has failed to keep his promise of marriage to a girl because she has yielded to his importunities.

PREPARATION FOR MARRIAGE

When the maiden has promised to become a wife and is looking forward to home-building, she collects her linen, both plain and fine, if she can; she makes as dainty personal apparel as her time or purse will allow. Let her also go into training for the real business before her.

Marriage is a partnership to which each brings a share of the investment. The man puts in the earnings of his time and ability, and the woman to be an equal shareholder, must put in economy and skill in using the funds. A careful buyer gets much more for the money expended; a skilful cook gets more nourishment from the materials bought, and a competent housekeeper prevents waste in every part of the house.

When a man invests in a home, he ought to have as well-ordered a home as the money expended will provide. It may be ever so simple and exceedingly plain, or it may be one of wealth and beauty; it still ought to have at its head a wife who will see that it is well-ordered.

If a young woman cannot learn practical housekeeping at home, she ought to take definite lessons in domestic science and the care of children, as a part of her preparation for marriage. Many young women are now taking lessons at college or in schools of Domestic Science and Arts as a part of their training for home-making.

It is unfortunate that custom has placed such a burden of preparation upon the prospective bride in collecting the elaborate trousseau, and in filling the many pre-nuptial social engagements. Fewer clothes and better health, fewer social functions and longer hours of sleep would make the chances of happiness greater.

It is of paramount importance that both husband and

wife should be in a physical condition to be patient and happy. Tired people, people with nerves, seldom are patient, happy ones. The way in which the first difficulties are met often decides the future for good or ill. It, therefore, behooves the wife to enter upon the marriage relation with everything in her favour as far as planning and self-denial will accomplish it.

THE MARRIAGE RELATION

After the marriage ceremony a new era begins. The girl who has up to this time thought first of self has many hard lessons to learn which only a great love for her husband can master. The wife's first thought should be for the happiness of her husband, and many personal preferences and pet idiosyncracies have to be laid aside by both parties in this adjustment of two people to one life. Without prudery, the little delicacies of life should be observed, and caresses and words of love between husband and wife help to feed the flame of love. Every wife owes it to her husband to become the willing mother of his children. A girl has no right to marry unless she is willing to be a mother. A middle-aged woman may marry a middle-aged man, if she loves him, and be a companion to him and a stepmother to his children. But a young man has a right to fatherhood. To a girl who has been properly taught regarding the sacredness of life, and who has thought of child-bearing as a matter for pride and joy, the wifely relations will be accepted with innocence and pleasure, providing the husband is generous and thoughtful.

A wife might well be free from child-bearing the first year of her married life, while she is becoming adjusted to changed conditions. The tendency to pregnancy is greater just before, during and immediately after the menstrual

week; therefore, the wedding day would better be set for the week in the middle of the menstrual month. Even then, one is not immune from pregnancy, abstinence being the only sure preventive of pregnancy.

The mental attitude of the mother at the time of conception should be one of joy and willingness, so as to impress the child with nobleness of character. It is impossible to tell how many perverted children of upright parents are the result of tempestuous, hateful thoughts at the time of conception.

If happiness is to be retained, no one, however dear to her, must be allowed to come between husband and wife. What transpires between them must be a sealed book to everyone else. *Little difficulties or peculiarities cannot be the subject of conversation between the wife and anyone else on earth.* A very small affair when made the subject of discussion may grow to large proportions. A husband's little shortcomings ought to be protected from other's eyes as one hopes to have her own weaknesses overlooked. *A thing overlooked is forgotten.* A thing discussed with an outsider forms a barrier between the two vitally concerned.

The young wife may well avoid the first contention and yield a point, or even two points, and nine times out of ten a generous impulse comes also to the man who wants to yield his share. There is no danger of strife when the *first quarrel* is avoided.

CHAPTER VII

THE MOTHER

THE STORY OF LIFE

As soon as the girl begins to ask questions as to her origin, so soon should the subject of motherhood be presented. Children develop so differently that no rule of age can be relied upon as a guide to the time. One child will ask at four years : " How did I come to be here? " while another will seem ~~not~~ to have thought of his origin before seven or eight.

Whether he asks or not, the parents should place some information in his hands, at six, and more at ten years, for invariably the average child of ten or eleven will have received information from someone by this time, and it is of immense importance that it should come first from his parents.

The way in which the subject of Life—its origin, its function, its powers—is presented will determine the child's whole mental attitude and affect his entire life. If procreation is looked upon as a joke, conception a shame, manhood a thing to be wasted, and motherhood a thing to be avoided, the whole warp of life becomes distorted and no beautiful fabric can be woven upon it.

The first step towards motherhood should be taken when the girl, wondering whence came this life, goes to her mother with the query : " Where did I come from? " and

the mother, filled with the spirit of love, tells her the story of life. How shall it be told? Always truthfully, always reverently, not all at once, but finally something like this: " You came from God. He started you as a tiny egg, an egg almost too small to be seen, and this egg grew in mother's body. At first mother did not know it was there, but one day she felt something moving inside, and she knew God was making her a baby. It took God almost a year to make it, and all this time mother ate a little more, and slept a little more, and stayed more in the air, so that she might feed and rest this little one and give it good air to breathe. It grew and grew until she could feel its little arms and knees pressing against the outside walls of her body. And one day when the little child was perfect, it was born." " Did it hurt? " asks the little girl. " Yes, but mother was so glad to have a little girl that she forgot all about the hurt and was just happy."

Circumstances must dictate how much of this story shall be told at a time. If the child begins to question when very young, it may be a year or two before it gets the whole story; on the other hand, the occasion might be such that it would be well to tell it all at once. If a child does not ask questions, an opportunity should be made to present the subject. The coming of a baby into the neighbourhood, or into the family, is an excellent time for the story, and it should be given to boys as well as girls.

Thus far there is no hint of fatherhood, and scarcely need be until the child is ten years old. That seems very young, but statistics show that the majority of ruined boys and girls begin to go wrong before they are eleven years of age. One must watch for the psychological moment, and when it comes, the duty must be done without flinching. How? The way must be determined by the circumstances. For example, a mother has always talked freely

with her boy and girl, and the way is free between them. If the daughter comes some day and says that the girls talk about those things in a mean, vulgar way, the mother need not be shocked, but by asking questions enough to keep up the interest, she will get some new, and it may be, startling information. Then is the time to tell the child that those powers of which she speaks are for fatherhood and motherhood, and for nothing else, and that they must be kept sacred to that use, and never lowered to any other level. A boy may be told that he must wait until he has grown to full manhood and has chosen a woman to be his wife; must wait until she is his wife and must take his first best powers to her. As he expects his wife to be pure to him, so he must see that all other girls are (as far as he is concerned) kept pure, and that he gives *purity to the one of whom purity is asked*. The girl may be told that the eggs which grow within her can never develop until they are fertilized (just as the kernels of corn are fertilized by the pollen from the tassels), and that this is done by "physical contact" which is allowable and holy only between people who love and are married. If the girl cites the case of some unfortunate girl who has become a mother, she may be told that girls sometimes come to sorrow by first allowing boys to be free with them in an innocent way, which freedom is increased until sin enters in. She ought to know that the only safe way to follow is the rule : "Hands off."

One should stop reverently when approaching the holy ground of motherhood, where the miracle of creation is being wrought, where the forces of Nature are working together to build a human body into which will pass in some mysterious way a portion of the divine spirit which makes it a living soul.

PREPARATION FOR MOTHERHOOD

Nature has provided for the continuance of the race by making the act which results in impregnation a pleasurable one when desired by both parties to the act. Where love and purity of thought are the accompaniment, the offspring may say not "in sin" but "in love" did my mother conceive me, and there might be many immaculate conceptions and many children born into the Kingdom of Love.

The thing of greatest importance to the mother is the welfare of this embryo child, and she must consider this embryo a living child from its first conception to its birth, remembering that anything done purposely to kill this germ is the actual taking of a life; that any wilful disregard of her own health as in late hours, tight clothing, the use of alcoholics or narcotics, is taking the risk of robbing another individual of his right to be well born and unhandicapped in life's race.

EMBRYOLOGY

The development of the child within the uterus of the mother represents a chapter in the life history of every individual so important in its relation to maternity and paternity that every young woman, yes, and every young man, should be acquainted with at least its general features.

As stated in the chapter on Reproduction, every living organism begins life as a single cell, or globule of protoplasm, called the ovum. When this ovum reaches the finished state, which is called "maturity," it leaves the ovary, and is carried along the Fallopian tube into the uterus, where, if fertilized, it usually finds a lodgment in

the upper part or fundus of uterus. The cell from which each child begins its development, is formed by the fusion of two cells or globules of protoplasm, one furnished by the mother and called the ovum, or egg; the other furnished by the father and called the spermatozoon. The egg is very much larger than the spermatozoon, and contains enough yolk material to afford nourishment for the embryo for a number of days.

Once the minute ovum has been caught in the projections of the velvety inner surface, this thick velvety lining of the uterus in the neighbourhood of the ovum begins a rapid growth, gradually enveloping the rapidly expanding ovum.

Within the ovum there are taking place some of the most marvellous changes in the whole life history of the individual. The nucleus of the fertilized egg, and the protoplasm which surrounds it, divide into two cells, then into four, eight, sixteen, etc. These divisions follow each other in such rapid succession that there are many hundreds of cells by the end of the first twenty-four hours. These cells soon begin to arrange themselves into layers and groups which step by step develop the different tissues and organs of the body. [Study carefully figures opposite page 146.]

By the end of thirty days, the little embryo about as large as one inch of the end of a lead pencil, would be recognized as the embryo of some mammalian animal, but it would be quite impossible to say whether it would develop into a human being or some other animal, if it were seen quite apart from its immediate surroundings. By the end of another thirty days, however, the little embryo has multiplied its size several times, and reached a form instantly recognizable as the young of the human kind. It still, however, retains the vestige of a tail, which within the next thirty days will have been completely

absorbed. The little two-month embryo has projecting from its abdomen a large structure called the umbilical cord, and it is that which joins the embryo to the mother. The large stalk of this cord passes upwards from the body of the embryo, merging into the structures in the top of the uterus, and the little branching structures passing from the base of the uterus. These are loops of blood vessels and they form part of the placenta or "after-birth." Through this cord the embryo receives its nourishment from the mother. The blood of the mother bathes these loops of blood-vessels, and the embryo absorbs from the mother's blood the nourishment which builds its bones, muscles, brain, spinal cord and glands. From the same source the embryo receives the oxygen necessary for the maintenance of life.

From the third month on to the end of the nine months, the amount of material which the mother must provide for the development of the child within her uterus amounts to no small draft upon her physical resources. It is not at all uncommon for a mother in the later months of pregnancy to become quite pale, her blood having been impoverished to provide material for the development of the child.

The date at which to expect the child can be found, approximately, by counting nine months from date of beginning of last menstruation, and adding six days; for example, the last menstruation began on the 10th of January, the child may be expected on October 16th.

During the period of gestation, the mother makes her sacrifice in many ways; the father, too, should make a sacrifice—that of continence, for one year—the nine months of pregnancy and the three months following. *All other animals observe this period of continence*, and Nature demands that man observe it in common with other

animals. Man is the only animal that has transgressed this fundamental law of Nature, and *Nature always metes out a retribution for transgression.* Sexual intercourse may sometimes (but rarely) cause an abortion or miscarriage. In any case it is an extra drain upon a woman's nervous energy, and is believed by some to be the cause of deformities and other abnormalities in the unborn child.

Hygiene of Pregnancy: The mother's thought during the months of embryonic child-life should be for the child, and no question of appearance or personal gratification should be allowed to interfere with the child's growth, or any false modesty deprive it of its rights to fresh air and good health.

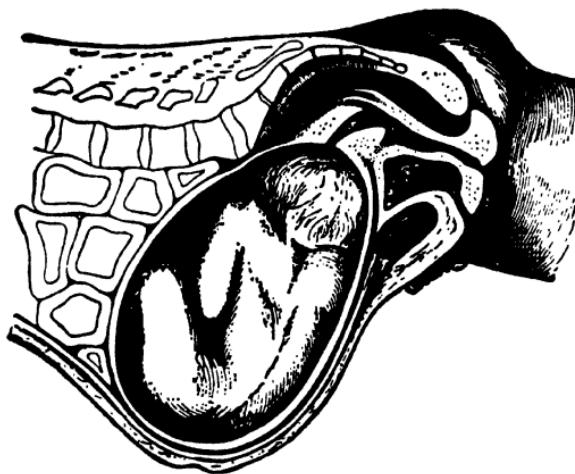
Clothing: So much depends upon the child having room in which to grow, that the matter of clothes for the mother may well be considered first. The combination underwear does away with the harmful belts and bands which constrict the form. Such garments might well be worn all the time, but especially during pregnancy, this garment, together with the chemise or a combination under-waist and skirt, would be all that is needed under the pretty empire gown. The empire gown disguises the form, depends from the shoulders, and gives the abdominal cavity freedom to expand.

Corsets should have no place in the pregnant woman's wardrobe. Indeed anything that presses down upon the abdomen is likely to displace the uterus and so interfere with the growth of the unborn babe.

A displaced uterus makes impregnation difficult, increases the danger of miscarriage, and decreases the chances of the child for a good start in life.

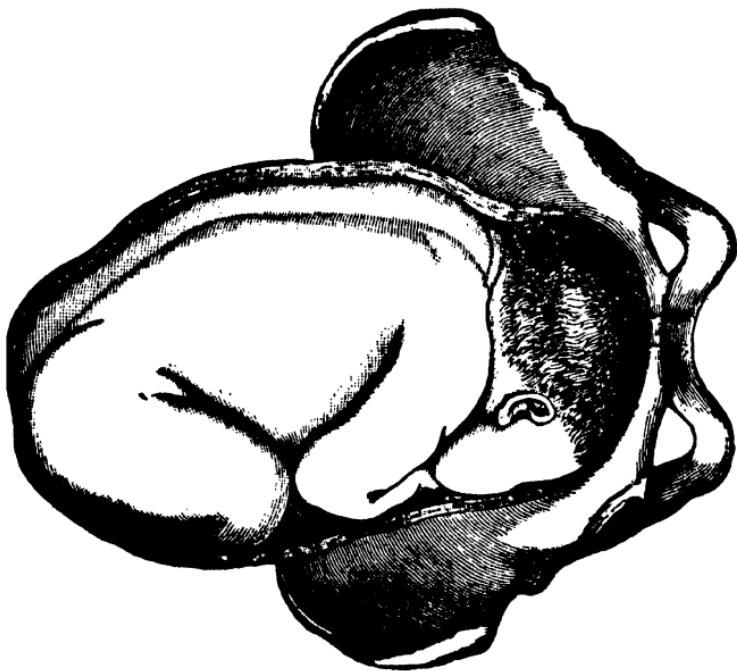
Air: The unborn child holds much the same relation to the mother as the diver in his diver's suit holds to the world, and is as dependent upon others for his air supply.

BEGINNING OF LABOR *



THE CHILD IN THE WOMB

* This is before the birth canal has become dilated. The thick convex or neck of the womb is shown opening at right angles into the long vagina. In the front of the vagina is the bladder; behind, the rectum.



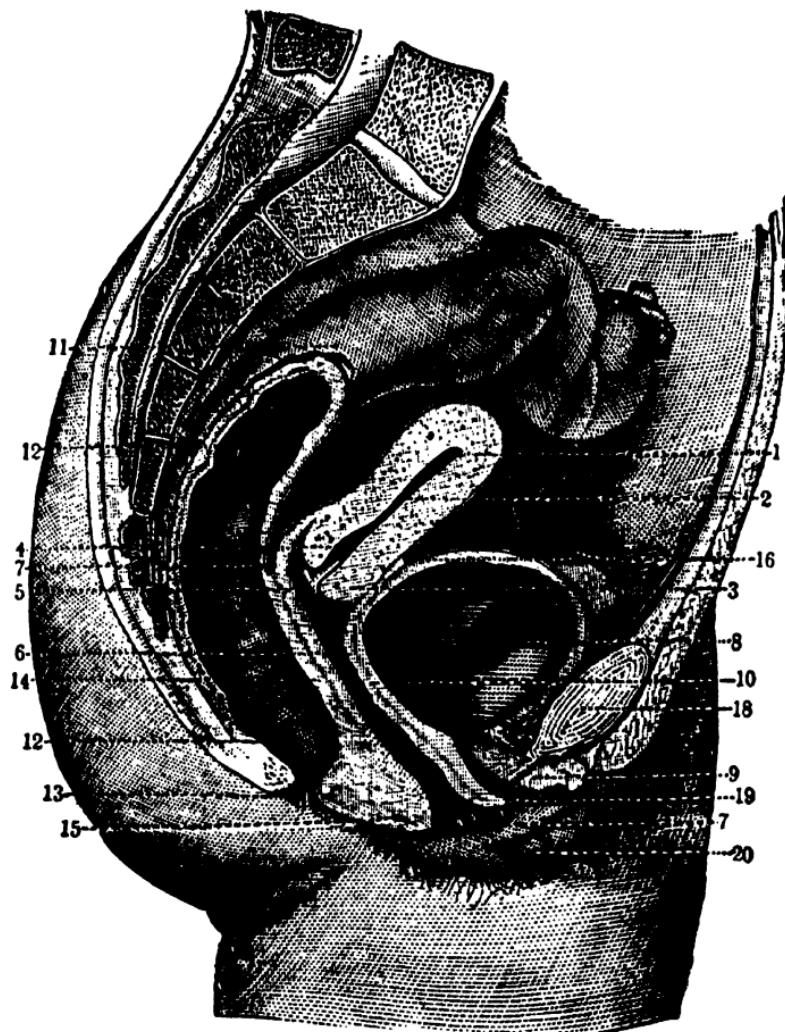
The child gets his air supply from the mother who must secure enough oxygen for both, if she would have the child well nourished. Oxidation of the food which one gets is dependent upon the oxygen supply, and only that food which goes through the process of oxidation can furnish energy for use of the organism. There must be oxygen to assist in the development of tissue, and oxygen to dispose of waste materials. Impure air—air lacking in oxygen—clogs the system, just as insufficient draught—lack of oxygen—deadens a fire. Outdoor air is pure air, rich in oxygen. Indoor air that has been breathed is impoverished and vitiated.

Food: What shall the mother eat that will keep her well nourished and at the same time build a new organism?

The mother hen, when preparing for the coming of her little ones, places around the embryo, within the egg-shell, all the material needed to make a chicken. The shell is porous enough to admit a sufficient air supply. The egg, when it leaves the mother-body, contains the germ, albumen, oil, mineral matter, iron, sulphur, etc., and water. After three weeks of warmth, the shell breaks and out walks a complete and perfect chicken, while everything else has disappeared. The food materials have become bone and muscle, nerves and blood vessels, hair and feathers.

The bean or pea-mother, when preparing for the coming of her little ones, places about the embryo, starch, vegetable albumen and mineral matter, sometimes sugar and oil, and when heat, water and air are added, these substances are transformed into a new plant of the mother's species.

The nut-tree mother puts the food for her offspring, oil, protein and mineral matter within a shell which, like the egg-shell, must burst to allow the growth of the young tree, and within this shell is placed all the nut-plant needs except the air, water and heat.



THE LOWER ABDOMEN IN A WOMAN

A side-view, with the organs cut in half, showing the shape and position of the womb in its relations to the other organs.

- | | |
|--|--------------------------------|
| 1. Uterus (or womb). | 11. The rectum, outer wall. |
| 2. Cavity of womb. | 12. The same, cut open. |
| 3. Neck of womb (or cervix). | 13. The Anus. |
| 4. Cervical canal. | 14. Posterior vaginal wall. |
| 5. External os (or mouth) of the cervix. | 15. Perineum. |
| 6. Vagina. | 16. Uterovesical pouch. |
| 7. Labia minora. | 17. Pouch of Douglas. |
| 8. The bladder. | 18. Symphysis pubis. |
| 9. Clitoris. | 19. External urethral orifice. |
| 10. Anterior vaginal wall. | 20. Labia majora. |

The mammal mother secretes milk to sustain her young until the offspring is able to get food elsewhere.

These natural foods, which have the power to build the tissues of the young of plant and animal kind, are the logical food for the woman who is building a new individual within her own organism; eggs, milk, nuts, beans, peas, peanuts for tissue building; oils, fats and starchy foods, for heat and motor energy; fruit juices and green vegetables for the mineral salts, with great quantities of water. The child not only needs water for its growth, but also water in which to float during its prenatal life. The mother, too, needs water for her own digestion and assimilation, and water to keep the body sewage system flushed.

Prospective mothers must use an abundance of fruit juice and of laxative foods, as well as an abundance of water, to keep the body free from poisons. No mention has been made of meat, which is a tissue builder, because of the uric acid which it contains. If one can live comfortably without meat, by using the above-named tissue builders instead, it will avoid many complications. If, however, a woman is pale and anaemic, she would do well to use some lean meat for the iron it contains. Foods in their simple form are best for both mother and child. For example, a meal of bread and butter, with a soft boiled egg and a glass of milk is far superior to a piece of cake made from the same amount of flour, butter, egg, milk and sugar, because of the greater difficulty in digesting and assimilating the cake.

If the pregnant mother is troubled with nausea, her stomach will often retain an egg lemonade, or an egg-nog, and keep up her strength until the nausea passes away.

More should be eaten by a woman when pregnant than at other times, but care should be taken that the work of

elimination through skin, kidneys and bowels is freely carried on. Inasmuch as milk contains no iron, and as the baby's first year's diet is solely milk, the mother must give her baby a year's supply of iron, and if she would avoid impoverishing her own system of iron, she should eat abundant quantities of green vegetables—spinach, chard, beet greens, lettuce, celery and green onions—whole milk and eggs.

Sleep and Exercise: Pregnant women usually feel the need of an extra amount of sleep, and should yield to the demand; it is Nature's call. Even if one does not feel sleep, she should spend long night hours in bed, and should try to find time for a daily rest. This relaxation is of great benefit to the nervous system, and helps the mother to bear the extra drain upon her strength.

To "lie around" a good part of the time, however, is prejudicial to the good health of both mother and child. The mother who goes about her daily task, keeping up her activity and her interest in things, will keep her muscular system toned up and ready for the work to be done at childbirth, and will give birth to a stronger, more active child, other things being equal. Gymnastic exercises, lifting heavy weights, reaching high above the head and jumping, are things to be avoided.

Should there be a discharge of blood, even slight, at any time during the pregnancy, the prospective mother would be wise to go to bed for a time and avoid the danger of losing the precious life. Every precaution should be taken to carry the child to maturity. It is harder for the mother to have a miscarriage than to give birth to a child at full term. *Any effort to destroy a human embryo is an effort to take a life, and is a crime.* As for any fear of childbirth, that should never be entertained for a moment. If one does all she knows to be healthy, and keeps a

cheerful mind, the chances are all in her favour, and with a competent doctor and nurse, there is no cause for anything but trust. Pain there will be; it may be pain that amounts to agony, but it will all be forgotten in the great joy, the overwhelming love that envelops the mother when she clasps her child to her bosom, and she is ready to say "All this, and more, for the sake of the child, the husband and the home."

Mental Hygiene: The time-worn theory that a mother "marks" her child by thinking of dreadful shapes, and looking at frightful objects, has been discredited by medical authorities. Abnormalities of form, and the arresting of mental development, are usually the direct result of a failure of that particular part of the child to receive nourishment. The connection is sometimes broken by fright or accident, or fits of temper. A calm frame of mind, the absence of anger or sulks, will be the best preventive. A mother may well keep herself in spiritual communion with the Creator who has chosen her as a co-worker with Himself, and think of this as a holy time when she has an unseen child whom she can love and serve by being happy and sweet, and to whom she may thus give a better equipment for life.

CHAPTER VIII

THE BABY

WHEN a woman is honoured with the promise of motherhood; when there is placed in her care a human being to train for usefulness in life and fitness for eternity, there is opened to her a new world of happiness, a new field of usefulness.

With the first knowledge that the promise of seed is to be fulfilled in her, the mother-heart sings the universal song of joy. Physical reasons often prohibit an exuberant rejoicing, but every child must be welcome. It is his birthright. Even though the nest be already filled to crowding, and one's means are taxed to provide for one more, there must still be a welcome. If a child is not desired, no opportunity should be allowed for conception. After the child is conceived, the mother must rejoice and be glad, for the sake of the child upon whom ineradicable impressions are being made.

When baby comes, the question of government begins. Shall the child's unreasoning will guide the household, or shall he be ruled by a reasoning mind which will decide questions on the basis of merit?

If baby becomes a tyrant and governs the whole household regime, it will soon come to be a very uncomfortable household, and baby himself will be neither well nor happy.

The child comes into the world with no habits, good or

bad; even during the first few days the first habits are acquired, so the desired programme should be begun early.

A young baby needs letting alone as much as he needs anything. Indeed, that is the one thing to which he is accustomed. He wants to sleep and eat, and he wants very little else.

The Bath: After the first cleansing bath, the child may be oiled with olive oil, and for the first two weeks, instead of a daily soap and water bath, the oil baths may be continued, using water for such parts only as become soiled. From this time on a soap and water bath may be given once a week with a fresh water bath on other days, using soap for soiled parts only. As the child grows older, more frequent baths may be given, but an infant's skin does not need soap oftener than once a week.

In hot weather one or two tepid water baths a day are cooling and refreshing. As soon as baby comes out of the bath-tub, wrap him in his canton flannel square while he is being wiped or patted dry with a soft towel.

Put the band and diaper on then under the shirt, place the other garments together and put them all on at once, that the child may not be fatigued with much handling.

The bath is best given in the morning, long enough before a feeding time so that he may be bathed, dressed, and then fed and laid in bed for a three hours' sleep. This arrangement makes the nine o'clock bath hour a good one.

Wash the face with clear water, keeping the body covered until ready for it; then wash ears and head with soapy water, which will prevent the discoloration of the head, which is sometimes seen.

When ready to wash the body, uncover and wash it a little at a time, if a sponge bath is given; or put the child into the warm water supported by one hand while the other is used to lave it, if the bath-tub is used.

The eyes should be washed with a clean bit of old linen dipped into a boracic acid solution, using a clean piece for each eye and burning them after use. The nose may be cleaned in the same way. The baby's mouth should be rinsed with weak boracic acid after each feeding, and the mother's breasts before each feeding.

Clothing: With what joy the mother fashions the tiny garments which are to be worn by the baby. Into every seam is woven loving thoughts of the coming happiness. Note the following "*Layette*" or Baby outfit. The little one will not need a great many clothes nor very elaborate ones.

4 Longcloth or Cambric Slips,
3 White Flannellette Nightgowns,
3 Pinning Blankets,
2 Flannel Skirts,
2 Muslin Skirts,
2 Soft White Dresses (nainsook, mull, lawn),
2 doz. Large Diapers,
2 doz. Smaller Diapers,
2 doz. one-foot squares of old muslin or linen to fold inside the diapers for the first few days,
2 Flannel or Crochet Sacks,
2 Pairs Booties,
3 Pairs Cashmere Stockings,
2 Flannel Shirts, long sleeves,
A Knotted Comforter, 1 yard square,
A large square of canton flannel to wrap baby in after the bath,
Safety Pins, large and small,
2 Flannel Bands.

One may add two flannel wrappers and as many other things as she desires, but the layette described is enough to keep a baby comfortable and clean.

These garments should all be made to suspend from the shoulders. The skirts and dresses should measure not over three-fourths of a yard in length, and should be ample in breadth. Then with dainty draw strings at neck and sleeves, the child may be allowed to *grow* into "short clothes" instead of being *put* in.

The flannel band is no longer bound tightly around the baby, but is wound loosely and worn to keep the abdomen warm. The new-born baby needs this and the flannel shirt at any season, but as soon as the baby becomes accustomed to its new environment, it is unwise to keep a baby swathed in flannel in a temperature of 90 degrees or more. If a baby continues to fret in hot weather, or to have heat rash, it would be wise to lessen the amount of clothing. On a very hot day, a band, a diaper and a slip are clothing enough for any but a new-born baby. One need not hesitate to change the clothing with the changes of temperature; that is a matter of common sense.

The nightgowns should be very long, and secured at the bottom with a draw string so that the feet may be protected. A sleeping bag made of padded cheese-cloth, tied above the shoulders, down the sides and across the bottom with tapes, will so securely protect the child that he cannot throw off the clothes and catch cold. This precaution alone will give the mother hours of comfortable sleep.

Air: If his serene highness comes into the world in winter time, care must be taken to keep his room well aired and free from the products of combustion. No oil stove or gas stove should be allowed in the room unless provision is made to carry in fresh air and carry out the products of combustion. The windows should be open when baby (protected from draughts) takes his naps. If he comes in the summer time, he can very soon be put out of doors to

sleep, and then he can perhaps sleep out all winter if the weather is not too severe.

A baby cannot thrive without a good deal of fresh air, and it is better if he can have it without the motion of the carriage than with it. If the conditions are favourable, he can lie in the carriage on a porch or by a window where he can be observed from within by his caretaker.

Sleep: Twenty hours of sleep out of the twenty-four are not too many for the new-born baby. It is essential that the baby should observe night and day and have the four waking hours in the day time. If he seems inclined to turn night into day, he may be kept awake during the day for a time, so that he will sleep at night, and after that he will presumably sleep regularly at night.

If he takes his last feeding at ten o'clock at night, he can easily wait until six in the morning for his first morning meal. After a feeding, he may sleep another three hours. Should he waken and cry, a bottle of hot water will warm and comfort him, yet it will not induce a habit of eating at night, and he ought soon to sleep the whole night through.

Food: As the little chicken during its pre-natal life eats the "egg," and the new-born calf takes the mother milk, so should every human offspring have mother's milk for its sustenance. Everything that a baby needs in the way of food is contained in this natural food. No matter of convenience, or pride, on the mother's part, should rob the baby of this inherent right, and love ought to make it a pleasure to feed the child from the mother body. Mother's milk has the advantage of being always warm, always sterilized and nearly always well balanced. Nothing else will quite take its place.

The free use of water and mild fruit juice together with good nourishing food will sometimes increase the quantity

of milk. If the milk is too rich in cheese qualities and constipates the baby, try nursing from both breasts at each feeding instead of alternating; that will sometimes correct the difficulty. If, on the other hand, the milk is not rich enough, it may help to nurse only one breast at a feeding, allowing the milk of the other breast to remain over an extra period.

The mother's frame of mind may also affect the milk. A fit of anger or violent excitement, or of crying, may actually poison the milk, while the opposite frame of mind conduces to its high quality.

For the first few days the child needs no real food, but should be given the breast six or eight hours after birth, when he will draw from them a laxative which carries off the substance that fills the bowels. This may be repeated every four hours until the milk comes.

On the third day the milk enters the breasts, and then the baby must be fed every two and one half hours. After two months every three hours is often enough. These hours should be adhered to with religious regularity.

The hours for nursing may be decided upon and nothing should be allowed to interfere with them. Many doctors advise against waking a child to feed it, but others and many practical mothers find that if a child is wakened for its feeding at a certain time, it will form a habit of regular sleeping and eating.

Crying on the part of the child before the time for feeding is not always, in fact, not often, an indication that the child needs food; sometimes it indicates that the last feeding did not agree with it, so that even crying should not induce a change in feeding hours.

If, after feeding, the baby be held over the mother's or nurse's shoulder until the "wind" comes up, it will usually

prevent colic. If colic follows the feeding, it may be helped by laying the child across the knee, face down.

When the mother's health will not permit the child to take mother's milk, the best substitute is cow's milk modified. The principal constituent of cream is oil, which supplies heat and energy, but does not make tissue; the principal constituent of skimmed milk is protein, a tissue builder. This makes it evident that diluted cream will not take the place of whole milk. Constipation can sometimes be relieved by adding a greater proportion of cream to the milk.

Cow's milk is too strong for a young baby, and it should be diluted about half and gradually increased in strength as the baby grows, but this modification of milk is so individual a thing that it has often to be directed by the physician. One ounce of milk per day is enough for a new-born baby up to 1 month; eight $2\frac{1}{2}$ oz. feedings may be given at 2 months; eight 3 oz. feedings may be given at 3 months; six 5 oz. feedings may be given at 10 months; six 7 oz. feedings may be given at 12 months.

Most babies at this age can take whole milk. Some provision for iron may be made at ten months by dividing a yolk of an egg among the six feedings for the day. Even as early as three months prune juice may be given for constipation, and at six months orange juice in small quantities between, not with, the feedings.

If these precautionary methods do not prevent constipation, and olive oil given in small quantities and rubbed into the abdomen fails to give relief, a regular daily evacuation of the bowels must be secured by an injection of warm water and castile soap, given at a regular daily hour until the habit is formed.

Babies can be trained not only to eat regularly and to sleep regularly, but to evacuate regularly.

PART IV

THE BEGINNINGS OF ALL LIFE

CHAPTER I

SEEDS AND EGGS

THE mind of the child is full of questions about life. The questions should be answered truthfully. If the child cannot personally see the things described below, let his parents and teachers describe them in the following way:

In the early spring, as early as the first of April, let us go to the country and see the farm life. On the trees the leaf buds have swollen, the lilac buds have burst, showing their fresh green leaves; the fruit trees are already spotted with the colour of the partially opened blossoms and will soon be clothed in snowy white. The frogs croak a welcome from the pond, the birds cease their busy home-building long enough to thrill us with their song. What do all these spring signs mean? All things are growing, multiplying and replenishing. Every form of all this teeming life, plant and animal, is developed from eggs. The seed of the corn, or the seed of the tree, is in reality the egg from which the new plant develops, just as truly an egg as the hen's egg, which we all recognize as such. It will repay us while on the farm to watch a mother hen.

She gets up early, gets her breakfast by scratching busily in the scattered litter, and then quietly disappears. Let us quietly follow and we will find her cosily settled in a secret corner of an unused manger. The next day we go to the barn early enough to look into her nest while Mother Biddy is getting breakfast, and find she has already a round dozen of her beautiful white treasures. Each day she adds another until she has sixteen, and then she no longer leaves her nest except for a short time each day, but begins the long period of incubation. The farmer says the hen is "setting," and we know that she is keeping the eggs warm while they develop into chicks.

Just where the eggs come from is somewhat of a mystery unless we are so fortunate as to see the farmer's wife prepare a chicken for dinner. When she opens the body of the hen to remove the intestines and other internal organs, she finds an ovary with eggs in all stages of development, from the little yellow balls, the size of a pin-head, to the full-sized egg-yolk. Every female bird has an ovary, and within this ovary the eggs grow. The little yellow dots grow; no two are the same size, each larger than the other up to the largest one which is nearly the size of the yolk of an egg, in fact it is the yolk of an egg. During the laying season one of these egg-yolks leaves the ovary each day and passes along the egg tube or oviduct to the cloaca (an enlargement just inside the body), from which the egg is finally expelled when the hen "lays" it. But something very important must happen to it before it is "laid," if it is ever to develop into a chick. The egg must be fertilized. Every day the rooster deposits in the cloaca of the hen the fertilizing fluid which is made up of many minute, rapidly moving bodies. These bodies wriggle up through the oviduct and fertilize the egg-yolk soon after it enters that tube. After being fertilized in the oviduct, the

egg-yolk receives the white portion and becomes enclosed within a membrane, and the whole is further enclosed within a shell, which is first soft, but becomes hard as the shell reaches the cloaca. Each morning one of these eggs becomes complete, and the hen goes to her nest and leaves it there, continuing this until she has a nestful—from twelve to sixteen—when she stops laying and “sets” over them while they incubate. Shall we examine a hen’s egg? It seems too bad to take the eggs which the hen mother has patiently laid, one after the other, in the nest, but if we are careful and take only half of them, she may not miss them. Let us wait until she has been setting on her nest one whole day, and then remove one egg and compare it with a fresh unincubated one. Hold the fresh egg in the hollow of the hand, crack the shell on the side with the handle of a pen-knife, lift off the broken bits of shell with the point of the knife blade until a spot about an inch in diameter has been exposed; carefully remove the membrane and look at the egg-yolk, plainly to be seen under the transparent white. Note the little circle about a fifth of an inch in diameter. This circle, called a germinal vesicle, is the germ of a chick whose development was checked by the cooling of the egg when the mother hen left it in the nest. Lay the fresh egg down and take up the egg which the hen has kept warm for twenty-four hours. When the germinal vesicle is exposed, a marked change is noted. The area is no longer circular, but has become an oblong, two or three times longer than it is wide, and wider at one end than at the other. Two little ridges lie, side by side, down through the middle of the oval. These ridges mark the beginning of a new life—a young chick. After a second day’s incubation open another egg in the same way, and note that the oval area has doubled in size, the ridges have become more prominent, and have

grown together in front, and closed over to form the head of the chick.

The third-day chick rests in a very greatly enlarged area, which covers most of the upper surface of the yolk, and shows little blood-vessels branching out from the lower surface of the chick. Just at the back of the head, on the under side, the heart may be seen beating regularly. Nature works so fast that on this third day from the first division of the germ spot, one may actually count the heart-beats. A few drops of warm water dropped upon the embryo will increase the rapidity of the heart-beat, or a little ice water will decrease its rapidity.

On the fourth day, the egg you take from the nest shows a greater development of the circulation and shows the beginning of eyes, wings and legs. The eggs of all birds and of animals higher than birds, develop in just the same way up to this point, but on the fifth day a change takes place; the skin shows where the feathers are to be, and we know that without a doubt Nature is making one of the bird kind.

Of the next succeeding days we notice the decreased amount of bulk in the egg-yolk. One would naturally wonder how the young chick eats and breathes during its three weeks of incubation. All it has to eat is the yolk and white of the egg. All it has to breathe is the air which passes through the pores of the egg-shell. These pores may be seen upon close examination. If they were closed with vaseline or varnish the chick would die from lack of air.

The blood-vessels which spread over the surface of the yolk absorb the yolk substance and carry it into the body of the chick. The white is absorbed in the same way.

On the twenty-first day, when all the stored-up food has disappeared, the chick picks a hole in the shell, breaks it

open and walks out into a new world, and we say the egg has "hatched." The chick is wet and forlorn looking at first, but it soon dries off and the chick becomes fluffy and beautiful. The mother protects her chicks under her wings and shows them how to find their food.

CHAPTER II

FROGS, FISH AND TURTLES

HAVING listened to the noisy croaking of the frogs for two or three weeks, we determine to find out what it is all about, and make our first entrance into frog society. Rubber boots being the proper thing for a frog reception, we are able to wade out into the pond. As we pass quietly along the edges, we hear frequent splashes as a frog jumps out into the pond from some unseen spot and disappears among the weeds that grow on the bottom of the pond. He emerges a few minutes later to take a breath of air, for frogs breathe by means of lungs and cannot stay very long under water, even though they can stay ten times as long as a boy can. In a cool, secluded pool, shaded by willow trees, we see a group of big frogs with rounded bodies. These are mother frogs whose bodies are full of eggs. As we watch we see another mother frog whose eggs are pouring from the cloaca into the water, and as they pass out from the cloaca, they are being fertilized by a fluid from the body of a male frog. Now let us go to a warmer pool in the sunshine and look into one of the little nooks where a mother frog laid her eggs a week ago. It is swarming with tadpoles. Hundreds of these little wrigglers are swimming about, some as long as a pin, some half as long, and some of them still a jelly-like mass of eggs in which the tadpoles are just beginning to show their shape

through the transparent egg. The mother is nowhere to be seen. She simply laid her eggs and left them to hatch and care for themselves. Without a mother's care, many of them become food for fishes, but even so a goodly number of them escape, grow in size, develop four strong legs, lose their tails, and become frogs to repeat the history of their parents.

The creek which carries the water away from this pond is fed by springs and has many a pebbly shallow where fishes make their nests. Let us follow its course until we find a fish nest. Not having at hand twigs and wool, the fish mother uses what she has and builds her nest of pebbles. She selects a spot, collects pebbles by nosing them out of the ooze and mud, and gets them into a circle. If we approach quietly enough, we may see her resting just over her nest, pouring thousands of little orange-coloured eggs from her cloaca. These eggs sink down until they rest among the pebbles. Hardly has she deposited the eggs, which pour from her ovaduct and her ovaries, before the male fish appears on the scene. He recognizes the nest of his own species—perhaps he helped to make it—and sees that the eggs have been deposited there, so he rests above the nest and pours his fertilizing fluid upon the eggs. This fluid sinks down into the nest and fertilizes the eggs, which begin at once to develop. Within a few days, little fish will swim out from among the pebbles in flocks or schools, each hunting his own food from among the living plants and animals floating in the water, and many of them being sacrificed as food for larger animals. A very large proportion of all the little fish that are hatched become food for larger fish, only a few out of the thousands grow to maturity and take their place in the fish world.

Walking along watching the fishes and tadpoles, notice a little clear place in the sand somewhat back from the

shore. Our eyes are directed to it by the clumsy turtle which is emerging from it. As she disappears, we see lying in the warm sand, almost covered by it, a white egg as large as a pigeon's egg, but alike at both ends. In picking it up we break the tender shell and find in the egg-yolk a young developing turtle. Having clumsily spoiled this egg, we search again in the nest and find under the sun-warmed sand several eggs which the mother has laid and left for the sun's warmth to hatch. If we wish to watch the turtles after they hatch, we must now fence them in with a framework partly embedded in the sand and covered with mosquito netting. This netting permits the sun's rays to continue to warm the eggs, but prevents the escape of the young turtles. At the end of a week or more of daily watching, we find a tiny little turtle crawling about in the sand. The next day there are two, the next day there are no more, but the day following two or three more appear. During the whole of the next week, there are no additions, so we lift the box and watch events. The little turtles, with unerring instinct, all shortly find their way to the water which they seem to recognize as home.

On the way back from our last visit to the turtle nest, we pass the big walnut tree. Under the tree we find a walnut. The walnut is similar to an animal egg, for it has its shell, which is filled with food material for the young thing which will grow within if the nut is placed where it has warmth and moisture. Real plant eggs called ovules are developed within the ovary of the plant very much as the eggs of the hen, the fish and the frog are developed in their ovaries. The little seed ovule, sometimes no bigger than a pin-head, becomes fertilized by the fertilizing substances or pollen from the male flower and develops into the seed. Plant seeds differ from bird eggs in the extent to which this development has been carried. The nut

represents a real plant whose thick leaves (the nut meat) are full of nourishment. The corn seed contains a little plant with root, stem and leaves surrounded by food for its growth. The bean consists of a plant with all its parts and the fleshy, seed leaves containing enough nourishment to last the plant during germination.

CHAPTER III

KITTENS AND PUPPIES—CALVES AND COLTS—BABIES

THE statement that all life comes from an egg is as true of higher animals as it is of lower animals and plants. Cats and dogs, sheep and goats, cattle and horses, and even babies, begin their lives as eggs, but such tiny, delicate eggs that if they were deposited anywhere outside of the body, they would surely be lost or destroyed. To prevent this loss, Nature provides a nest for such eggs within the body of the mother. This nest is called the womb. The tiny eggs are prepared in the ovary, but instead of passing along the oviduct into the cloaca and being "laid" like the bird's eggs, they pass into the womb, and are either expelled and lost or are fertilized and retained in the womb during all the incubating period. In the womb the egg is protected from all harm, and is kept warm and moist.

The fertilization of the eggs is accomplished while they are in the womb (or uterus), and no growth of the egg will take place without this fertilization. As soon, however, as it has been accomplished, the egg begins to develop. The time required to develop a perfect individual of any of these higher forms of animal life differs from two to eleven months. The kitten requires three months, the calf nine months, the colt eleven months for complete development. On every side, as we wander over the farm, we

see the processes of life-formation and caring for the young. We see the mother cat lying contentedly in her cozy bed in the barn, purring while the little blind babies tug at her breast for their dinner. The farmer laughs at your distress over their blindness, and tells you that they will see all right when they are nine days old. We see the wobbly-legged calf, poking his nose around his mother to find the full "dinner pail" which she has waiting for him. Perhaps the milk you drank for your own breakfast came from this same udder.

Some morning when you go to the orchard for apple blossoms to decorate the house, you will be delighted to find Old Jess, the family horse, standing between you and the tall grass, where lies her little colt, which she is watching. You gain a better viewpoint by offering Jess some lumps of sugar, and she allows you to kneel beside her baby, and even to stroke its soft neck. Presently it gets up and walks with uncertain step to its mother, where it proceeds to get its dinner from her milk supply as the little calf did from his mother.

The farm is a veritable mine of knowledge. You begin to think over the wonderful things you have seen. Did you notice that all these animals, whose young develops within the body, are protected by a coat of hair, fur or wool, and are fed from the milk glands of the mother's body? Such animals are called mammals.

After three delightful months of the free and happy outdoor life of the farm, you go back to your city home, and what is your surprise when a nurse introduces you to a little baby sister only two weeks old. When baby cries, nurse, saying baby is hungry, carries her to your mother, who gives her a dinner from her own breast, and you are overwhelmed with the greatness of the thought which comes to you that we, too, belong to the great animal kingdom and that baby

sister, the little lambs and colts, and the kittens all come the same way. You ask your mother : " Was little baby sister formed from an egg, and did she grow within your body? " " Yes," says mother, " baby grew within mother's body, and for nine months mother was giving her life-blood to build up the little baby body, and now mother has milk in her breasts for baby to feed upon." You marvelled at the loving sacrifice of a mother, and your heart filled with love for your mother, and in that moment you resolved that you will always love and protect your mother in every way you can.

CHAPTER IV

GROWING UP

THE man, the horse, the ox, the dog, the robin, the turtle, the frog and the fish all start life in exactly the same way. That is, they all start from a tiny mass of living matter which is formed in the ovary of the mother. This mass of living matter is called an egg. The egg is fertilized or started on its development through the influence of another tiny mass of living matter which the father or male parent furnishes. After fertilization, the process from egg to maturity is a process of "growing up." The fish egg grows up into a mature fish with its scaly sides; the turtle egg grows up into a mature turtle inside of a hard shell; the robin's egg produces the red-breasted favourite of spring-time, which builds his nest in our shade trees and rears his young before our very eyes; while the egg of the horse develops for nearly a year, hidden within the mother's body, after which it comes out into the world alert and active, able to walk and to run though only a few hours old.

The young of the human race, after three-quarters of a year spent within the mother's body, comes into the light of day, a seeing, hearing, feeling baby, resembling its parents, but a very helpless little object, unable for many months to feed itself. In fact, for years the child requires the patient,

watchful care of father and mother. First, to feed it and clothe it, while it is helpless; next, to feed and clothe it, during its inexperienced growth; and lastly, to furnish it with both clothing and shelter, while it is learning to provide for itself, and before it has sufficient experience to warrant it in providing itself a home. These three stages of life are called Infancy, Childhood and Adolescence. There are only two more stages of life, Adulthood and Old Age. Infancy extends over the first three years; Childhood over the next ten or twelve years; Adolescence covers the next seven to ten years. Adulthood or Middle Life extends over about forty years, and the rest of life belongs to Old Age.

Only the first three periods of life belong to the "growing up" time of life. During infancy the baby learns to feed itself, to walk and to avoid certain dangers, such as touching hot objects or tasting unknown or forbidden things. These lessons the baby learns from experience. One after another these experiences are met and learned till baby is safe from everyday dangers, and has learned by experience, also, the meaning of many words, and uses from three to five hundred words with which to express his simple ideas.

During the first six years of childhood, the child learns to dress itself, accumulates some experience of the world and learns his place not only in the family among his brothers and sisters, but in the neighbourhood among other children, and in the last six or eight years he accumulates much physical strength and agility; such knowledge and mental power as will enable him to enter into the games of his fellows or to earn his living if it is necessary.

Adolescence is that period during which the boy develops into a man or the girl into a woman. An average American boy begins his adolescence about the fifteenth year. Puberty, a period of two or three years, is the first

stage of adolescence. During this time, the youth grows rapidly, first in height and muscular development, and then in brain control of his physical being. Between eighteen and twenty-four or five, very important changes of mind and personality take place. The boy has already acquired most of his height and growth, but there is a wonderful development of brain-power. His reason becomes logical, his judgment sound, his mental vision clear. During these years he chooses his life-work, prepares himself for it, and makes his start in business or profession. The average American girl begins her adolescence about the fourteenth year. During her years of puberty, she acquires the rounded form of womanhood, the abundant hair and the rosy cheeks of maidenhood. Her mind, too, undergoes a great change. She acquires certain motherly and home-making qualities before unnoticed. Her interest in music and art increases, and she takes delight in decorating the home and ornamenting herself. Later in the period, she, like the young man, chooses her life-work and begins her home-building.

PART V

PERSONAL HYGIENE

DIET—BATHS—EXERCISE—CONTROL OF THOUGHTS

CHAPTER I

It is proposed in this chapter to outline, very briefly, a few simple rules of hygiene, the observance of which will tend to bring the young man into the highest possible state of physical development. Assuming that he wishes to lead a continent life, the observance of these rules will make that much desired condition more easily attainable.

I. DIET

(a) *Choice of Food.* The young man who is boarding at a restaurant, or in a boarding club, can modify his diet only within the range of the menu provided. Fortunately, the young man can observe the most important rule of diet, that is, to eat abstemiously. Wherever one is boarding, he can eat temperately; he can avoid highly spiced foods, tea and coffee. The observance of these simple rules will go a long way towards simplifying his sexual problem. It has been discovered, by the study of the influence of diet upon sexual appetite, that the heavy eating of rich and highly spiced foods, indulgence in stimulants and narcotics, all tend to excite the sexual desires.

(b) *Narcotics* are those drugs which cause narcosis, or a dulling of the senses, and a decreased activity of both the muscular and nervous system.

One of the most common and typical narcotics is opium. Derived from opium is morphine. Cocaine belongs also to the narcotics, as do the anæsthetics, such as chloroform, ether and common alcohol.

So the young man who would develop a clear-thinking brain and a sound body must leave alcoholic beverages alone. Furthermore, the young man who would have absolute control of his sexual desires must leave alcohol alone, for the first thing that alcohol does is to throw down the lines of control. It is under the influence of alcohol that the young man is almost sure to make his first visit to the house of prostitution. If a girl lose her virtue, it takes place in a majority of cases when she is under the influence of alcohol. But for this influence lessening her control, she could not be seduced. Hence one of the requirements of continence is TOTAL ABSTINENCE.

In so far as tobacco is a narcotic, in just so far does it disarm and put to sleep those æsthetic and moral impulses which are so helpful in the maintenance of the continent life.

(c) *The dietetic control of the bowels.* A most important hygienic rule is to maintain a strict regularity of the bowels. By regularity of the bowels, we mean a free, normal passage of the bowels at least once in twenty-four hours. Two or three passages in twenty-four hours are not too many.

A tendency towards constipation may be hereditary. The writer finds that at least one case in four of persistent chronic constipation among college men seems to be due to a hereditary tendency.

Those individuals who have from early infancy and

throughout their whole lives suffered from a tendency to constipation, and perhaps from actual chronic constipation, find it exceedingly difficult to produce normal, regular daily movements of the bowels. Whether constipation is chronic or occasional, or whether it is hereditary or acquired, in any case it should be corrected, if possible, through modification of the diet, and of daily habits.

First of all, one must remember, in this connection, that the lower bowel or rectum is subject to education, and not by any means the least important factor in overcoming a tendency to constipation is the regular morning visit to the water-closet.

The author would discourage the habit, which some have, of "straining at stool." This act of straining at stool, together with the pressure which the hard fecal masses make on the blood vessels, increases the blood pressure on the veins of the rectum to such a high degree that it is likely to cause haemorrhoids or piles. But if the position favourable to the passage of the bowels be taken regularly every morning, and a reasonable time spent in that position, and if the daily passage is brought about at the time, the muscles of the rectum will be educated to the point of contracting upon its contents at that time and under those conditions regularly, and this will be a strong factor towards regulating the movements of the bowels.

But the most important thing to consider in this condition is the dietetic regulation of the bowels. There are some foods that tend to constipate, while others act as a laxative. Such foods, for example, as contain a considerable portion of tannin, are always constipating. Strong teas have a constipating effect, particularly such as the bitter English breakfast teas, in which there is a very large proportion of tannin.

accounts for the prevalence of constipation among female tea drinkers.

If one then, who is annoyed by a tendency to constipation, wishes to correct it, a rational change of diet would be to eat freely of cereals and coarse bread and of various fruits, particularly apples, figs and prunes.

The most effective way to eat these laxative fruits is to eat freely of them just before retiring. The apples and figs may be eaten just as they are received from the market. Prunes may be soaked in cold water for twenty-four hours, and then taken directly from the cold water and eaten.

If this is not effective, a supplementary regime may be adopted that is only in part dietetic, that is, to rise ONE HOUR BEFORE BREAKFAST, drink two glasses of cold water, and take a brisk walk of fifteen to thirty minutes. The cold water has a tonic effect upon the stomach, preparing it for a rapid digestion of the breakfast. It also washes out the accumulation of mucus in the stomach, which may easily equal a pint in volume. This pint of mucus, plus the pint of water, making a quart of liquid altogether, pours through the pylorus, and during the rapid walk works its way rapidly down through the alimentary tract, washing the whole tract and preparing it to receive and rapidly digest the next meal. This slimy water, having washed out the stomach and small intestine, then passes into the large intestine, moistening and lubricating its contents and causing it to move gradually towards the rectum, where it stimulates a normal free passage into the bowels after breakfast.

Any usual case of constipation will yield to this treatment. Such a treatment is incomparably more rational than the taking of medicines.

(d) *The Dietetic Control of Sleep.* Most students study in the evenings. If their heavy meal is a dinner at 5.30 or 6

p.m., they are likely to feel very drowsy by 7.30 or 8 o'clock. This is a perfectly natural experience, all animals manifesting a drowsiness after a heavy meal. If one could lie down and sleep for an hour while his dinner is digesting, he could probably rise at 8 o'clock and put in two or three hours of good hard work. He would find himself at 11 or 12 o'clock so thoroughly awake, however, that he might have difficulty in getting to sleep if he retired at that hour. If, on the other hand, one has his dinner in the middle of the day, and a light supper at night, he is able to begin studying within an hour after supper, and keep it up until he is ready to retire. In this case also, he is likely to be so wide awake at the time of retiring that he may have difficulty in getting to sleep. In either of these cases, it is altogether proper and advisable to take a light lunch before retiring. A double purpose can be served by this lunch. In the first place, the taking of anything into the stomach that requires digestion tends to deplete the circulation from other organs (brain in this case) to the stomach. In the second place, the food may be so chosen as to exert a definite somnolent effect. Such foods are celery, lettuce, onions, warm milk. It may not be convenient to get warm milk at midnight, but it would hardly be inconvenient to provide one's self with two or three Graham crackers and a stalk of celery. These with a drink of water ought so far to divert the circulation from the brain as to enable one to fall asleep quickly.

(e) *The Dietetic Control of the Kidneys and Skin.* The stimulation of excretion, through the kidneys and skin, may be an exceedingly important thing, particularly if one has just caught a cold and wishes to establish free excretion. The food which has a most clearly marked effect upon both kidneys and skin is the juice of the citrus fruits. These fruits, as they appear in our markets, are lemons, oranges

and grape fruit. All of these fruits are in a high degree wholesome as an addition to the dietary. Lemon juice is far more wholesome than vinegar in salads. The juice of lemons and oranges make most refreshing and deliciously cooling drinks in summer, and on occasions where one wishes to get a stronger stimulation of the kidneys and skin, he has only to drink large quantities of hot lemonade.

(f) *The Dietetic Method of Curing a Cold.* A whole quart of hot lemonade may be taken on retiring after one has caught cold. The effect in such a case would be to cause a free sweating and copious urination. Both the action of the kidneys and the skin would tend to carry away from the system the materials that have been retained as a result of the cold.

It is hardly necessary to add in this connection that care should be taken that during the sweating or immediately following it, the body should not be exposed to catch more cold. In this method of treating a cold, one should take a strong cathartic, such as two or three teaspoonfuls of castor oil, and should remain in bed twenty-four hours. During this twenty-four hours, no other food than a little light broth should be taken. This treatment usually completely breaks up a cold, and one is able, in two or three days, to make good the loss of the twenty-four hours, during which time he was confined to his room.

This dietetic method of caring for an acute catarrhal cold is incomparably wiser and more economical than to drag around, hoping to "wear out the cold" only to be worn out by it.

2. BATHS

(a) *The Bath for Cleanliness.* Little need be said regarding the bath for cleanliness, except that it should be

taken at least once in a week during the colder portion of the year, and perhaps as frequently as once a day during that portion of the year when there is free perspiration.

Where one is bathing for cleanliness, he may well use soap and warm water over the whole surface of the body. If he takes this bath just before retiring, it is not necessary to take a cold shower or sponge at the end of the bath. If, however, one takes a warm soap bath in the morning, the relaxing effect of the bath upon the skin makes it necessary to take a cold shower or a cold sponge after the warm bath in order to secure the tonic effect upon the skin, and fortify one against catching cold.

During the hot weather, when one may bathe daily for cleanliness, he should guard against an excessive use of soap, as a daily soap bath may have a tendency to remove the oils from the skin so completely as to make the skin rough. With the daily bath for cleanliness, it is possible that warm water and soap need not be used more frequently than once or twice a week, and that a laving of the whole surface with cold water, followed by a vigorous rub down with a coarse towel, may serve the double purpose of insuring absolute cleanliness, and at the same time serving as a skin tonic.

In this connection, the author would emphasize the importance of insuring absolute cleanliness of the sexual apparatus. In primeval conditions, less attention was necessary, as these organs were more or less exposed, but the present method of dress is such as to permit the accumulation of the skin secretions. While these may in part be removed by the friction against the clothing, it is advisable to wash the external genitals and all neighbouring surfaces as a regular part of the daily toilet.

(b) *The Tonic Bath.* In warm weather, when one takes a daily bath to insure cleanliness, at least five of these baths

each week may be in cold water, sufficiently cold to secure the tonic effect as described above. In cold weather when one takes not more than one or two warm soap baths a week, the cold tonic bath can be made to serve a most important purpose in the hygiene.

Some have followed the custom of immersing the body completely in a tub of cold water. This method of taking the cold bath is not to be recommended, except for those who are in the most robust health, and in these cases, so vigorous a treatment is not necessary nor particularly beneficial. The author has seen many people who were injured by this method of taking the tonic bath.

There are two methods to be recommended: those who have access to a cold shower may stand for a moment, and for a moment only, under the cold shower, then step at once upon a warm rug and rub the whole surface of the body vigorously with a dry crash towel until the whole surface of the body glows with the warmth of the reaction. If one does not have access to the cold shower, he may take a most effective tonic bath in his room, using cold water, the coldest obtainable, with sponge, or even a wash cloth, dipping the sponge into the cold water, then pressing out enough of the water so that there will be no excess of water to run over the surface of the body from the sponge. Begin by sponging face, neck, shoulders, arms and chest, then wipe these parts dry, subject them to vigorous friction with the crash towel, until the arms, shoulders and chest particularly, glow with the warmth of the reaction. While the upper half of the body is receiving its bath, the lower half may be kept covered, and conversely.

This tonic bath should be taken immediately upon arising in the morning, and as a part of the morning toilet.

If one takes such a tonic bath on arising, then dresses hurriedly and takes a brisk walk of fifteen or thirty minutes, the regime quickly brings his body into the most vigorous and robust state of health; unless there is something wrong with his digestion or his excretion, and even moderate derangements of these will be very likely to be corrected by the régime just suggested.

3. EXERCISE

Incident to the above topic, mention has been made of the brisk morning walk before breakfast. This has a most salutary tonic effect besides the influence that it exerts upon the bowel movements. Not the least important results of this morning exercise depends on the fact that the lungs are repeatedly and completely inflated with the pure out-of-door air. This naturally exerts a most valuable influence upon the development of the lungs in the youth, or the maintenance of their vigour in middle age.

This increased heart action is also advantageous as it leads to hasten circulation through the muscles, glands and brain. This hurrying blood current not only carries nutriment to these organs, but carries away their accumulations of effete material to the excretory glands.

The student must be cautioned not to overdo this early morning exercise. The mile run, the mile row, or any other strenuous exercise, is strongly to be discouraged at this time of the day. If one overdoes morning exercise, he is likely to feel somewhat depleted and fatigued throughout the remainder of the forenoon, and his ability to do a high grade of mental work is decreased rather than increased.

Besides the morning exercise, every person, who wishes to live a vigorous physical life, should have from one to

two hours of heavier exercise during the latter part of the day or evening. This exercise may take any one of many forms. It may be golf, tennis, football, baseball, cricket, rowing, lacrosse, basket-ball, cross-country running, track or gymnasium work, etc., etc. The immediate results of this exercise should be largely to increase lung and heart action, and to cause a sufficient fatigue of the muscular system so that rest is sought and may be followed by dreamless, recuperative sleep.

It might at first seem paradoxical that to build up strong muscles, we must first fatigue them, but that seems to be Nature's plan. The only way to build up a strong physique is to use that physique, and use it to its maximum capacity.

If one exercises thus, freely, and eats abstemiously, he ought not to lay on fat. If he does lay on fat, he may know that he is eating more than he needs, and he should make his diet more temperate. The youth of eighteen or nineteen, who is tall and rather spare, and whose muscular system has not reached its full development, would increase his weight through muscle growth or fat deposit. The latter should be avoided, and the former encouraged.

Not by any means the least important thing accomplished by physical exercise is the association with his fellows incident to his exercise. The courage, nerve control, quick judgment, agility and strength required on the football field make no small part of the young man's equipment to fight the battles of life. The conditions of these games give frequent opportunities for the young man to cultivate the spirit of honesty and fair play, without which no man can reach his highest success in the real contests of life.

4. THE HYGIENIC REQUIREMENTS OF SLEEP

The personal hygiene of sleep is by no means an unimportant topic, though it may be briefly treated.

The amount of sleep that each individual requires and should take, can only be determined by the individual. Some seem to require ten hours, others eight, others six, while rarely individuals are found who seem to thrive on even so little as five hours of sleep out of twenty-four. The average requirement seems to be about eight hours. If one has, by experience or experiment, determined the amount of sleep which he requires, he should so plan his daily regime that he can secure that amount of sleep. While a brief departure from this regime may be without serious results, any prolonged departure from it will certainly bring its natural retribution. So, the young man having determined how much sleep he needs, should adopt a daily programme that will provide for just that many hours in bed, and he should early establish the habit of going to sleep at once upon retiring, and of arising at once upon awakening. Dallying in bed has led many a young man to lapse into habits of thought and of action that are in a high degree deleterious, morally and physically.

So far as one may choose the equipment of his sleeping apartment, he should choose a hard bed and a cover as light as possible and yet be comfortable.

One should never retire with cold feet. A most effective way to warm the feet is to dip them for a moment in cold water, and then rub them vigorously with a coarse towel until they glow with warmth. Furthermore, no more effective remedy for habitual cold feet could be devised than this nightly tonic bath.

One will add greatly to his comfort, and decrease largely

the danger of taking cold, if he provides himself with a pair of warm bedroom slippers, which should always be worn during one's excursions to the bathroom, and during his tonic sponge bath.

As to posture in bed, the experience of men, in general, is that the most comfortable posture, and the most hygienic one, is to lie upon the side. The right side is to be preferred to the left, because, in this position, the heart being on the upper side is not embarrassed in its free movement by the superincumbent lung tissue. Furthermore, this position facilitates the passage of digesting foods from the stomach. To maintain comfortably this side position, requires that the knees be at least moderately drawn up. This posture, when asleep, is practically identical with that of nearly all higher animals, and is unquestionably the most hygienic one for man. No animal, but man, ever lies upon its back unless it is dead. Furthermore, the dorsal position puts tendons, nerves and muscles on a stretch, while the flexed lateral position puts these in a more or less relaxed position, which is most favourable to rest.

It goes without saying that sleeping rooms should always be thoroughly ventilated. The occupant should take care that he does not lie in a direct draught from a window or door, because it has been found by experience that one is less likely to catch cold, if he sleeps out of doors, than he is if he sleeps in a direct draught from a window or door. Just why this is, has not been satisfactorily accounted for, but the fact remains. So, if you must sleep in the house, secure perfect ventilation without direct draughts.

5. THE CONTROL OF THE THOUGHTS

There is no more effective safeguard for the man who wishes to lead a continent life, than the control of the thoughts. It goes without saying that the man who thinks about sexual matters, especially the one whose imagination runs wild upon all kinds of sexually stimulating images, is only inviting temptation to relax his continence. If he controls his thoughts during those times when he is less amenable to temptation, he is far more likely to be able to control his acts at those times when his physical condition makes him most amenable to temptation.

The most effective way to control the thoughts is so to plan one's work as to insure the complete occupation of the mind with affairs that are wholly independent of sexual experiences or considerations. One should set a mark for himself so high above his present position that he is compelled to put forth strenuous and unremitting efforts in order to accomplish his aim. The old saying, that "Satan finds work for idle hands to do," is all too true. Anyone may observe the influence of idleness, or even the influence of a partially occupied programme, upon the habits of the youth and young man. Beard and Rockwell, in their valuable work on this subject, say : "Go to work; develop your muscles and brain; resolve to become at least useful, if not famous. The activity which will be necessary in carrying out these ambitions will divert the mind from imaginary evils, if they are imaginary, and will be one of the best means to cure the real ones."

PART VI

CRUSADE AGAINST THE EVIL

“WHITE SLAVE TRAFFIC” — “SOCIAL EVIL” —
“VENEREAL DISEASES” — “EUGENICS” AND
OTHER MORAL ISSUES AND REFORMS OF TO-DAY

CHAPTER I

We have now discussed the various phases of the educational side of the sex problem. We have given the young man, the young husband and father the information which they need. We have given the young woman, the young wife and mother the information which they need. We have given parents and teachers the methods of presenting the great life problems to the youth. There remains yet, however, to give parents, social workers and educators, information which they must possess if they are effectively to *guard the youth against certain great social dangers*. We refer to those destructive influences which ruin the lives of thousands of young girls, diverting their lives *from wholesome, sweet purity to degradation and shame*, and turn tens of thousands of young men from robust, clean virility to dissipation and debauchery.

These destructive influences may be briefly enumerated here as those associated with recreational life, those grow-

ing out of economic conditions, those depending upon unguarded social conditions, and those resulting from the vice or crime of others.

Knowledge of these influences and conditions above mentioned is absolutely essential if we are to cope intelligently with these conditions, and such knowledge can only be obtained by careful social surveys. Such surveys have been made in several cities of the United States, notably Detroit, Syracuse and Chicago. These surveys have been made either by specially appointed committees, representing the organized social, religious and educational forces of the community, or by Vice Commissions appointed by the Executive Department of the city. In either case, these bodies are composed of *representative men and women*. Another important source of information must here be recognized, namely, the data collected incidentally by professional people, such as physicians, lawyers and ministers, and social workers in the regular course of their activities. Such data, being incomplete and fragmentary, must naturally serve as supplementary to a complete social survey.

Notable examples of such contributions may be cited in the valuable data and *epoch-making influence* of the investigations made by the New York Grand Jury, of which John D. Rockefeller, Jr., was a member, and of the facts revealed by District Attorneys Sims and Roe of Chicago.

The revelations made by the Social Surveys conducted by Vice Commissions and Committees have been *so startling as to arouse the whole country* to look seriously upon present social conditions, and to endeavour earnestly to correct them.

The investigations have disclosed the fact that an appalling number of men and women are engaged in social vice and crime, a far greater number than was supposed; that

social vice leads to a wide dissemination of venereal disease, which must be recognized as a social scourge visited upon tens of thousands of the vicious, *and an equal number of the innocent;* further, that recreational and economic conditions are important contributory factors in the seduction and ruin of a large proportion of the girls who enter the army of clandestines and prostitutes; and finally, that no small proportion of the girls in houses of prostitution are there, not from choice, nor are they victims of seduction, but are held under lock and key, as abject slaves as ever wore shackles. These are the “White Slaves,” *as helpless and unable to escape as were the galley slaves, who were chained to their oars.* In their study of the causes of the present unfortunate social conditions, the Vice Commissions and Social Survey Committees agree substantially in their findings.

Young people universally crave recreation. Not being able to find it in their crowded homes, they look for it in the cheap vaudeville, the low-toned picture show, and the public dance hall (usually associated with the saloon). Here, by suggestion, they are demoralized as to their taste; then, as to their ideals and attitude towards social relationships; and finally, as to their actual practices.

The low wages paid to girls and young women in department stores and factories subject them to grave temptations. A girl of eighteen, for example, who is living away from home as saleswoman in a department store, finds that the meagre wage is barely enough to pay room rent and board, leaving clothing almost unprovided for, yet she is expected to appear well. She learns from other girls, whose clothes excite her admiration, that there is another way to supplement her meagre wage. Here temptation enters, and she must choose a battle-field with continual warfare, or turn down the wide, seductive road that leads to shame.

The ranks of the fallen are further recruited by the victims of betrayal. Betrayal takes several forms. One girl yields under promise of marriage, another may be the victim of a bogus marriage, while a third, responding to invitation or advertisement, finds herself entrapped in a house of prostitution, from which escape is impossible—a “White Slave.” These “White Slaves”—*victims of the most abominable traffic in the world's history*—are for the most part lured from homes in rural districts, and small outlying towns, by the promise of high wages for congenial employment, light work and short hours, affording her escape from the drudgery of her present conditions. The girl and her parents, wholly unsuspecting, accept the proposition, and, *ignorant of the danger, the girl goes to her doom*, perhaps accompanied by a fashionably attired woman, or met at the station by her betrayer. A large proportion of the “White Slaves” come from foreign countries. The girls, seeking homes in this country, ignorant of the language or the customs, are met and captured by men or women, who make it their business to waylay and mislead these unsuspecting girls. They are passed from city to city, from one house of prostitution to another, by a sort of “underground railway,” *maintained by a syndicate, which has representatives in nearly every large city in the world.*

Vice Commissions and Social Survey Committees are unanimous in their recommendation that nothing but *true religion and the dissemination of knowledge regarding the great truths of life*, can ever correct the sad conditions revealed by their survey. Encouraging progress is being made in the recreational conditions. Chicago, for example, has established recreation parks, including bathing, swimming pools and dance pavilions, a playground system, and has established in several school buildings “social centres,”

where parents and young people meet for entertainments, lectures with stereopticon, dramatic presentations and folk dancing, as well as classes, and extension lectures for adults. In many cities Parent-Teachers' Associations are discussing these problems seriously. This will probably soon be followed by instruction of pupils in the schools.

STARTLING FACTS CONCERNING THE "WHITE SLAVE" EVIL

The Department of Justice of the United States recently gave out the following *figures and facts* concerning the "White Slave" Traffic:

For 6,000 years the "White Slave" Traffic has existed in some form or other.

50,000 men and women now make a living in the United States by dealing in girls.

Between 15,000 and 20,000 girls, from 13 to 25 years of age, demanded each year by the "White Slave" Trade.

250,000 Women are now living lives of shame in this country.

\$1,000,000 will suppress the heinous practice, and \$250,000 a year will prevent it from springing up again.

Department of Justice Bureau, under the direction of Stanley W. Finck, reports the success of its movement to stamp out the practice of men living on their victims' "Wages of Sin."

It is generally conceded that *sexual ignorance is the chief cause of the "White Slave" Traffic*. Such conditions as make the "White Slave" Traffic possible cannot exist when our boys and girls, young men and young women, fathers and mothers and teachers know the plain sexual truths as set forth in the foregoing pages of this book.

Sexual knowledge must take the place of sexual ignorance. Adults and young people of to-day must be taught sexual truths, so that they will think of this knowledge as *sacred knowledge concerning the great truths of life* and the reproduction of humankind in accordance with the great plan of the Creator.

The teaching of sexual truths is advocated by prominent educators, social workers and religious workers.

The views of some of them are here given :

One of the foremost speakers of the "Men and Religion Forward Movement," which is thoroughly undenominational and for the uplift and betterment of all mankind, Rev. Dr. Lansing says : "Boys and girls should be taught sexual truths." He further says : "*One of the greatest causes of crime is the ignorance of boys and girls at the period of their lives when they need mature guidance and counsel.*"

Lady Cook, who may be referred to as "The Frances Willard of England," whose thought and life-work and influence has been only for the good of the race, the same as our own late Frances Willard, says : "*Every man should be as pure as the girl he marries.* I contest the truthfulness of the theory that the boy who has sown 'wild oats' makes the best husband. He often sows and reaps at the same time. *The children then must suffer for the sins of the father.*"

Miss Alice Carpenter, member of the committee on resolutions at the first National Convention of the Progressive Party, at Chicago, and one of the most active women in the Progressive movement, referring to the subject of morality and teaching sexual truths, says : "The question of morality is a vital one. I am told that there are 100,000 prostitutes on the streets of London, and they are all driven there by social conditions and an inadequate wage. It is

undermining the whole English race. I believe that the remedies for it are to give women the vote and to *teach sex hygiene to the young.*"

Rev. Dr. Berkowitz, a Jewish Rabbi, of Philadelphia, on returning from a trip to Europe, where he made a study of the methods pursued in countries on the continent, said that "*segregation is not the remedy for the social evil,*" and one of his principal reasons for objecting to segregation is the opportunity which such a measure gives for police grafting. The confining of disorderly houses to a certain district, he said, gives an opportunity for protection for houses outside the district, and is a temptation for policemen to collect revenue. "American cities," he said, "are way behind foreign cities in the study of this question. In one particular, especially, are they lax. *The prevention of diseases is one of the main necessities for work against the evil,* and the segregation of houses, with the attendant licensing of inmates, is not to be encouraged. The temptation is too great for those who might visit these places. In municipal hospitals in many cities, persons suffering from diseases are made a speciality, and this has had a big effect in cutting down the 'social evil.' "

At a recent convention of the National Conference of Catholic Charities, at Washington, Mrs. Thaddeus J. Meder, of the Catholic Woman's League of Chicago, advocated an appropriation by Congress of \$500,000 for the suppression of the "White Slave" Traffic.

Dr. J. Astinall McCraigh, head of the Educational Department of the National Christian League for the Promotion of Purity, in opening a recent campaign in the interests of this League in one of our large cities, in which movement are interested such prominent men as Bishop Doane, of Albany; Bishop Fellows, of Chicago, and Anthony Comstock, of New York, *advocated sex teach-*

ing to children as a method for offsetting the spread of impurity.

At the recent International Congress of Hygiene and Demography, at Washington, Dr. Ira S. Wile, of New York, member of the Executive Committee of the Society of Sanitary Moral Prophylaxis, speaking by special request of the Sex Hygiene Federation, said : " Why put this *vital and wholesome movement for sex education* upon the low plane of fear for the consequences if one transgresses? I don't believe fear is a high ethical concept to which to appeal. Our efforts must be turned not towards frightening the young to do right, but towards the inculcation of that right-thinking which leads to right-doing. *Education is the proper method to curb licentiousness. We must take the child from its birth and teach it self-control. Education of girls is the crux of the problem.* They themselves are the ones to train boys to self-control, for the male sex is the aggressor, and the female does not fall except by lack of will-power and self-control. Once all women made it plain that they will not marry a man who has not a certificate of health, once all womankind resolves she would rather be a healthy ' old maid ' than an infected wife, the problem of sex hygiene will be solved then, but not until then."

At the same International Congress of Hygiene, the Sex Hygiene Exhibit was one of the largest and most striking in the exposition. It was divided into two main sections —one by pictures and charts illustrating the need for instruction in Sex Hygiene, and the other illustrating methods of teaching. Twenty-minute lectures were given in a continuous performance almost daily in the Federation's dark room, illustrating, by moving film, talks by experts on eugenics, sexual diseases and teaching of sex hygiene. The honorary president of the American Federation for Sex

Hygiene, which made this exhibit, is Charles W. Eliot, president emeritus of Harvard.

SEX EDUCATION AS MEANS TO END VICE

At the Fourth International Congress on School Hygiene, Dr. Eliot, President of the Congress, delivered an *epoch-making address, urging sex education as a means to end vice.* Ignorance, repression, punishment were all discussed as contributory causes in sex demoralization, and a plea was made for *straightforward instruction and a fearless facing of sex truths—The Great Truths of Life.*

In his address President Eliot focused attention upon the three points of attack in the *world-wide movement for race regeneration.* He declared that the lust of men must first be overcome; that the weakness, dependence, mental and moral deficiency of women must be combated, and that an *uncompromising fight must be made against those who have built up a trade in licentiousness.*

He dwelt upon the *policy of silence* which has brought about the present era of physical and moral deterioration. He spoke of the *conspiracy to keep the young in ignorance and to allow them later to be shipwrecked on the danger rocks that should have been pointed out in early life.* Science, education and general enlightenment, he said, have suddenly opened the way to flooding the darkened recesses with light.

He said : “*Public opinion has been moved* by the many signs of physical deterioration consequent upon the rush to city life, the factory system, alcoholism and *sexual vices*, including reduction in the size of families, inability of women to nurse their babies, terrible infant mortality, the increase in defective children, and in persons unable to earn a livelihood.

PARENTS SEE A NEW DUTY

"The new interest in sex hygiene is not due, however, to speculations on the durability of modern progress only. Young people have lately heard for the first time what the risks of marriage are. With them the problem becomes an intensely personal one. They wonder how they can steer a course through the swirls and tumults of passion, which is the principal source of the delights of human life and of its worst anxieties and afflictions.

"Intelligent fathers and mothers feel a new sort of duty towards their children. Teachers see before them the deplorable results of sexual evils. Churches take a new interest. Many persons who get a smattering of eugenics are eager for legislation which is expected to act as a panacea for the evils which so terribly afflict the community.

HELP FROM SCHOOLS AND CHURCHES

"Defensive agencies against lust include full occupation of mind and body, manly sports, ambition and energy in the earning of the livelihood, timely knowledge, temperance in food and drink, and deliverance from mischievous transmitted belief, such as belief in the harmlessness of disease and the sexual necessity. The best source of information is the parent, but schools, churches and other social agencies must be utilized."

SCORES QUACK DOCTORS

"The home, the church and the school," said President Wm. T. Foster, of Reed College, "have reached a small proportion of the human race with adequate sex instruc-

tion, while thousands of quack doctors still ply their vicious trade, widely disseminating falsehoods and preying on that fatal ignorance of vital matters that we have carefully cultivated in our children under the name of innocence.

"Many generations have joined in the 'conspiracy of silence' in matters pertaining to sex. Having almost no opportunity to hear sex and matrimony discussed with reverence, our young people have almost invariably heard these matters discussed with vulgarity. If groups of social workers come to serious disagreement on other phases of the present emergency, all can unite in favour of spreading certain truths as widely as possible in an effective educational campaign. *Sex aspects of hygiene should be dealt with as a phase of school hygiene.*"

A Kansas City merchant and sociologist, who, in order to foster such instruction, paid the expenses of ten school teachers from that city to the above Congress, lately said :

"No school truly performs its duty that does not fit all its pupils for a successful battle against life's temptations. In prison work, in which I have been interested, I learned the value of sex hygiene. Men and women in jail are there because of excesses committed through ignorance. The menace of such excesses can be eradicated only by strict teaching. The young persons must know their danger, and must be prepared to meet it."

"EUGENICS" BRIEFLY OUTLINED

There is no subject about which young people contemplating marriage should be more sincerely and seriously interested than this subject of Eugenics. The word "Eugenics" means "well-born." One's first thought on this subject naturally concerns the heredity. However, to be well-born concerns environment almost as much as it

does heredity. We will, therefore, consider this subject rather systematically; first, as to certain general considerations; second, the part played by heredity; third, the part played by environment; and fourth, laws or rules of Eugenics.

I. GENERAL CONSIDERATIONS

Biology, now so widely studied, both in colleges and high schools, has revealed to the world and impressed it upon the conviction and consciousness of the whole thinking and reading world, first, that man is an animal; second, that this animal, *man, obeys the same laws in his physical and mental development that other animals obey*; hence, third, the laws of heredity, as carefully worked out for mammals, hold absolutely for the mammal, man; fourth, such conditions of life as food and shelter and association with others of his kind (environment), profoundly influence the development of the human individual as it does that of the mammal in general.

Much attention has been devoted, during the last few decades, to the breeding of domestic animals, and it has been found that every species responds readily to the care of the breeder. Horses, cattle, sheep, hogs, as well as other domesticated animals, and even plants, have been so greatly improved within the last generation or two, that their value to man has been at least doubled.

This improvement, through breeding, is accomplished through a very careful choice of mates; in other words, through a control of heredity on the one hand, and careful feeding, shelter and association on the other hand. The breeders say that *they are able, in a few generations of any species, to emphasize any desired quality, simply through the influence of these factors named above.* For example,

if the breeder wishes to produce a breed of cattle in which the cows are large producers of milk, they have only to choose for the mothers of the desired breed, the best milkers, and for the sires, males begotten from the best milkers. Determining thus the heredity, and specializing the environment, half a dozen or ten generations of such breeding will produce a strain of Holsteins, for example, commercially worth, perhaps thousands of dollars each for breeding, and the cows, commercially worth a hundred dollars or more, simply as milk producers. On the other hand, Herefords and Durhams may be modified by breeding and feeding to produce the best grade of beef cattle.

So in the horse kind, breeders have produced draft horses, roadsters and race horses, emphasizing any physical or temperamental quality at will, through strict adherence to the laws of breeding.

A few years ago it was simultaneously discovered, by a number of prominent people of the country, that *our Government and some of our States are spending millions of dollars for the improvement of domestic animals that possess a commercial value, while nothing was being expended to improve the human race.* A few extremists thought that the same measures could be adopted for the improvement of the human race as have been adopted so effectively for the domestic animals, but this is *not the view of the extremist only.* Thoughtful, conservative people believe that much may be done profoundly to influence our race without seriously disturbing the social order. The two influences which will probably be most effective are *education and restrictive laws.* The education will influence young people in the choosing of their mates, while the restrictive laws will *debar certain individuals from marriage.* Statistics show that in every State there are

many hundreds, if not thousands, of imbeciles, degenerates, criminals, insane, idiots, etc., begotten in lust and squalor while the parents were inebriated or semi-imbecile, insane, degenerate or criminal. As this generation of *human debris* becomes a charge on the State, seriously complicating social, political and economic conditions, it is the *universal belief that the State has a right to interfere in the propagation of such individuals.* The only difference of opinion is just how the State may most wisely exert its recognized powers in the matter.

II. THE PART PLAYED BY HEREDITY

Naturally, heredity exerts a profound influence upon an individual, and while environment exerts perhaps an equally profound one, still no adequate discussion of Eugenics can be made without going into considerable detail regarding heredity.

In order to explain the operation of the laws of heredity, it is necessary to explain *the begetting of a new life.* As you know, a new life is begotten through the fertilizing of an egg, produced by the maternal organism, by a sperm cell produced by the paternal organism. While the egg is relatively large and non-motile, and the sperm cell is relatively small and possesses a remarkable motility, the essential element in both the egg and the sperm cell is the nucleus. The nucleus of the egg and the nucleus of the sperm cell are the same size, and, separated from the accompanying cell substance, cannot be differentiated one from the other.

In the process of fertilization, the sperm cell enters the egg-yolk through the yolk membrane, and the two nuclei, called pro-nuclei, gravitate towards each other through the yolk substance, finally fusing with each other within

the yolk substance. Immediately after this fusing of the two nuclei, the process of development begins, and we say *a new life has been begotten or conceived.*

Of the essential material, the father furnishes the same amount as the mother. *In a wonderful way*, which we described in detail under Reproduction, the bit of living matter which comes from the father is so intimately mixed with the egg nucleus, that each furnishes exactly half of the nuclear material which becomes a part of each cell of the body. *Thus, every organ, tissue and cell of the new body, possesses a minute bit of material which came from the father, and an equal amount which came from germ-plasma of the mother.* Through this minute bit of matter, the development of the organ, tissue or cell is determined.

As we study the laws of heredity, we find that the sum of the hereditary traits possessed by individuals came equally from the paternal-ancestral line and the maternal-ancestral line. We also find that *the two parents exert, individually, one-half of all the hereditary influence*, while all the preceding ancestors exert the other one-half of the hereditary influence. The four grandparents will, therefore, exert one-fourth of all the hereditary influence, while the preceding generations of ancestors will exert the other one-fourth. In a similar way, the great-grandparents, eight in number, will exert one-eighth of the hereditary influence, and all preceding ancestors will exert one-eighth, and so on back through the generations.

If the question arises, how much influence does each parent, grandparent and great-grandparent exert on one's heredity, the answer is an easy one. If the two parents exert one-half of the hereditary influence, each parent will exert one-fourth of this influence. Further, if the four grandparents exert one-fourth of the hereditary influence,

each grandparent will exert one-sixteenth, while each of the eight great-grandparents will exert one-sixty-fourth.

The writer has heard people pluming themselves on being able to trace ancestry back to William the Conqueror. This great hero of English history lived about thirty generations ago. *In that generation*, each one of us possessed over one million converging lines of ancestry; each one would, therefore, exert *about one-billionth part of the hereditary influence*.

The parents and grandparents, therefore, exert together three-fourths of the hereditary influence and a very large part of the environmental influence, so *we don't need to do much worrying about what happened previous to the grandparents*.

However, we must recognize that certain family traits are passed down many generations in some families. This is probably due to the fact that they are valued traits of which the possessors are conscious and proud. These traits are cultivated in each generation, and there is not infrequently a more or less conscious determination or choice of mates, with some reference to this same trait. Should this mating between families that possess certain valued traits take place through three or four generations, it goes without saying that *the accentuation of this trait becomes very marked*.

According to the Mendelian theory of heredity, so carefully worked out by Mendel, and *now universally accepted*, a trait, as for example, colour, is likely (almost certain) to be passed down according to the following law: in guinea pigs, when a black male of black line of ancestors is mated with a white female, from a white line, their progeny will be *one-fourth black, one-fourth white and one-half mixed*.

It is very interesting to note that a trait like imbecility, that has been transmitted through several generations, and,

therefore, may be taken as a fixed hereditary character in that family, is transmitted, according to the Mendelian law, to progeny when the imbecile is mated with an individual whose family is free from this trait. *Out of eight children, we would, therefore, expect two imbeciles, two normals, and four, more or less defective ones.*

III. THE PART PLAYED BY ENVIRONMENT

The surroundings or conditions under which the life is developed, begin at the hour of conception, within the maternal uterus. *Every life is profoundly influenced by the conditions to which the mother is subjected during her carrying of the young life.* These conditions concern especially the nutrition of the developing life, so if the mother's nutrition is seriously interfered with during her pregnancy, the child is certain to show some mark of this interference with the mother's nutrition. This influence may make itself shown in various ways. There may be an impairment of physical development, taking the form of an arrest or retardation of physical development, or arrest or retardation of mental development, *or both physical and mental.* The conditions to which the infant is subjected during the first two or three years of life *also profoundly influence the course of development.* The discipline, training, associations, nutrition during early childhood, during the pre-adolescent period, and even during adolescence, also profoundly influence the course of development of the individual.

While it would be impossible, through environment, to develop mentality in a born imbecile, it is *altogether possible, through bad environment, to develop habits that will wreck the life in an individual whose heredity may be of a high order.* In a similar way, it is possible through

environment largely to overcome hereditary weaknesses, and greatly to strengthen hereditary advantages.

Let no young pair establishing a home lose sight of the importance of environment in the development of their children!

IV. POSITIVE EUGENICS

By positive Eugenics we mean conditions that accentuate desirable qualities. There are naturally two phases to this, namely, *the hereditary and the environmental phase of positive Eugenics*. Physical and mental qualities which are advantageous and strongly to be desired, may be cultivated and trained environmentally, and may be chosen in the mating, and in this way, if also cultivated and trained in the offspring, become gradually accentuated with each successive generation.

Education plays a very important part in this positive Eugenics. It plays its part in a double way. First, through causing the individual to take pride in the desired character, and cultivate that character, through leading the individual instinctively to be drawn and attracted towards mating with an individual from a family possessing the same trait; while, on the other hand, there is a condition which may be called *psychic inhibition*, which tends to cause the individual to hesitate, perhaps later, to say "No," when this much-prized trait is found not to exist in the family of a candidate for mating.

V. NEGATIVE EUGENICS

By negative Eugenics we mean the avoiding of the disadvantageous and unfortunate in the development of the individual. There are *certain unfortunate impairments, physical or mental, that should be studiously avoided in*

the mating of human individuals; such, for example, as hereditary insanity, syphilis, imbecility, degeneracy, criminality and chronic alcoholism.

If one of the parents possesses any one of these unfortunate impairments, especially if this impairment seems, evidently, to be inherited, *their offspring will certainly be profoundly influenced by this impairment, perhaps three-fourths of their children being distinctly subnormal.* If this fact is known to young people, that knowledge will *protect them from mating with an individual that is the victim of any of these impairments.* The victim of the impairment, however, perhaps because of the impairment, is very likely not to experience this inhibition, and may be ready to mate, either in wedlock or out, and to produce offspring. *Here is where the State should interfere, and every individual who possesses these serious impairments should be prohibited, in some way, from transmitting this unfortunate impairment to another generation.*

When we remember that a normal individual, born of a defective parent, may transmit to some of his children, even though married to a normal person, the ancestral impairment in small or great degree, *this fact should lead every young person to inquire carefully into the family history of individuals with whom the question of mating may arise,* and though that individual may himself be free from impairment, if he has an imbecile brother or sister, and a syphilitic or epileptic father, *the mating with that individual should not for a single moment be considered.* If young people knew these facts, it would not be necessary for the statutes, or for parental authority to interfere in the mating. This important trait of *psychic inhibition would cause any love that may have been awakened in the early meetings of two individuals to die out and be wholly destroyed as soon as the family history becomes known.*

Rev. Dr. Newell Dwight Hillis, successor to Henry Ward Beecher and Lyman Abbott in the pulpit of Plymouth Church, in a recent address in Boston, said :

" Venereal diseases are so prevalent among us that within three generations probably one-half of our present 95,000,000 people will, under the law of heredity, be driven to the wall. At the present rate, *while we are doubling the population, we are quadrupling our feeble-minded and multiplying by three the insane.* By new and rigid laws, we are going to have *an aristocracy of health.*"

In Lynn, Mass., on May 25, 1913, the Protestant clergymen resolved individually to take a stand for the *physical fitness of applicants for marriage, and they have concentrated their energies to see that sex hygiene is taught in homes, so that all young persons will understand.*

The Rev. Mr. Chase, of Lynn, discusses the subject and reasons in the following words : " It is a question of vital importance to-day, a question which *should be seriously considered by every clergyman in the country.* If every minister should take a firm stand in the matter, it would be directly responsible for eradicating to a great degree many of the miseries of this country."

As the representative of the National Congress of Mothers, Mrs. Orville T. Bright, of Chicago, addressing the fourth National Conservation Congress, said : " The Federal Government regulates Interstate Commerce and should have control of marriage and divorce. A standard of home-making also should be established, and trains, the same as used for agricultural instruction, should be sent over the country, demonstrating the subjects. *Ignorance of hygiene is the cause of the breaking up of many homes.*"

Rev. Dr. Sumner, chairman of the Vice Commission of Chicago, appointed by Mayor Busse, in the summer of 1910, to investigate the vice conditions of that city, is one of the

first, if not the first, to take the stand that *he will not perform a marriage ceremony without a certificate of health as well as the marriage licence.* This Chicago Vice Commission found that \$15,000,000 a year is the cost of vice in that city alone, and besides *many thousands of men and women and children pay the penalty with the sacrifice of their lives.*

Mayor Blankenburg, the Reform Mayor of Philadelphia, in the spring of 1912, in compliance with a resolution passed at a largely attended meeting of public-spirited citizens for the discussion of vice problems, appointed a Vice Commission for work similar to that accomplished by the Chicago Vice Commission mentioned above. Dr. Sumner was one of the speakers on that occasion, and told of the work of the Chicago Vice Commission. Director Porter, Public Safety Director under Mayor Blankenburg, addressed that meeting and suggested in his remarks that he believed in the segregation of vice. Since then he has expressed on different occasions that he firmly advocates the segregation of vice, and his views have been *severely criticized and bitterly denounced* by leading ministers, reformers and social workers, who have made a careful study of this subject. The following is perhaps the *ablest argument that has been made against the segregation of vice:*

In a recent address before the Homeopathic County Medical Society, the Very Rev. P. I. McDermott, rector of St. Mary's Roman Catholic Church, Fourth and Spruce Streets, took occasion to severely criticize Director Porter's methods of dealing with vice.

"The toleration, segregation or supervision of the social evil," said Father McDermott, "is virtually nothing less than the maintenance of a municipal brothel, where sin may be committed under the protection and supervision of the director of public safety."

Father McDermott took up the reasons advanced by the director as to why vice should be segregated, and punctured every one of them with sharp comment and protest. He referred to the director's argument that the segregation of vice was like quarantining smallpox cases, and said : " If this be so, and the tenderloin is recognized and protected as a quarantined district, then let all who enter it be kept there."

Besides Father McDermott, several doctors discussed the subject of social evil.

Father McDermott, in part, said :

" They call the social evil a necessary evil, just as if God, the author of all good, could possibly be the author of such a positive, unmitigated evil as the social evil.

" Without aspersing the character or questioning the motives of those who favour tolerating or segregating or supervising the social evil, it becomes a duty to examine critically the reasons the director of public safety gives in defence of what he calls ' supervising ' the social evil.

" The first reason is that the social evil has always existed, that no one has been able to extirpate it; consequently, that it will always exist; that, therefore, it is useless to try to repress or extirpate it. Who would be so foolish as to use this argument against the vigorous enforcement of the law against other evils? There have always been lies, thefts, murders—no one has ever been able to prevent them; consequently, they will always be committed; therefore it is useless to try to prevent or punish them. *What a paradise this world would be for all kinds of criminals if the officers of the law were influenced by such an argument.*

" This reason is like that of the man who would not do anything because he could not do all things. Men are obliged to exert themselves to the fullest extent of their ability. If, for example, a man cannot pay his debt in full,

he is bound to pay it in part. If he cannot pay \$100, he is bound to pay \$75, if he is able. If the officers of the law cannot extirpate the social evil, they are bound to repress it so far as they can. *An officer is sworn to execute all the laws*, and he would, indeed, be a queer freak if he assumed that it lay within his discretion to enforce the law against some crimes and to relax or suspend it in regard to others. If the laws against the social evil are good there is no excuse for not enforcing them. If they are bad, their enforcement is the surest way to secure their repeal.

REMEDY FOR SCATTERED VICE

"The second reason is that closing up the tenderloin would only scatter its prostitutes all over the city and possibly make them neighbours of the advocates of its suppression, or even neighbours of the mayor and the director of public safety. What if it did? Would it not afford these officials greater facility for supervising the social evil? What more right have these officials to object to their new neighbours than honest people have in the supervised district?

"Would the people of the respectable sections of the city be helpless to repel the invasion of their neighbourhoods by prostitutes? Would the director of public safety turn a deaf ear to their cries for protection? Would he who boasts that he could close in the twinkling of an eye all the houses of prostitution in the city be either powerless or unwilling to close those that, he thinks, would be opened in the best sections of the city?

"Do sane men argue like the director when confronted with the obligation or necessity of preventing other crimes?" Does a householder hesitate to protect his own life and property by causing a burglar's hasty exit from his premises

because there is a bare possibility that the burglar may enter a house in another section of the city? No! If the man thinks at all under the circumstances about the danger to his neighbour, he thinks that his neighbour is as able as himself to defend life and property. If the householder thinks, it is to conclude that the expulsion will discourage the burglar from other attempts at housebreaking; that it will give an alarm which will put others on their guard, and arouse the cops into activity, and thus end in the burglar's arrest.

"The third reason is that the closing of bawdy houses would distribute their inmates widely and spread the infection or contagion of their diseases all over the city, just as the driving of smallpox patients from their homes would spread the disease far and wide. *Whoever heard that smallpox patients are driven from their homes only to wander at will through the city?* On the contrary, they are removed from their homes, isolated in pest houses, where they are detained and treated better than they could be at home, until recovery or death, for the express purpose of preventing the spread of the disease. Prostitutes may be removed forcibly from dens of infamy, isolated in pest houses until the danger of infecting others is removed, and they are reformed. *Much more should be done to save the public from the infection of the social evil than from the contagion of smallpox.*

"The policy of supervising the social evil, of confining prostitutes to a certain section of the city, with a view of saving the city from infection, overlooks entirely the fact that disease is also spread by the men who resort to brothels. *As these outnumber the prostitutes 50 to 1 or 100 to 1, the danger from them is in that proportion greater.*

"To be consistent in his plan to protect the public from infection, the director of public safety should not only

supervise the inmates of brothels, but also the frequenters of them; confine not only diseased females to a certain section of the city, but also the infected males. The latter are free to circulate everywhere and to carry into the best sections of the city the infection of the brothel. *If supervision is to continue, let the tenderloin be walled in and those who enter it be kept there.*

"The theory that public health and virtue can be best protected by supervising dens of infamy becomes ridiculous when it is extended to supervising dens of thieves and dens of counterfeiters. It would be just as sane to relax or suspend the laws against thieves and counterfeiters as it is to relax the law against prostitutes; these deserve no more consideration than those.

"The theory of supervision is based upon the notion that the enforcement of law promotes crime, whereas the contrary is true. Experience proves that where the law is vigorously enforced and swift and severe punishment visited on its violators, the evil-disposed are deterred from the commission of crime, while the law-abiding enjoy protection and peace. Where the administration of law is slow and lax, people suffer the consequences of its violation. When musicians wish to produce harmony, they tighten the strings of their instruments. 'Liberty is the slave of law,' says Cicero. *Nowhere are people's rights more respected than where law and order are vigorously maintained.*

"The toleration, segregation or supervision of the social evil is virtually nothing less than the maintenance of municipal brothel where sin may be committed under the protection and supervision of the director of public safety.

"The fact that a portion of the city has been allotted or devoted to the social evil is in itself a temptation; just as easy access to intoxicants has tempted men to become drunkards.

"*The failure to close houses of prostitution is tantamount to placing temptation in the way of many, whereas it is the duty of the authorities to remove temptation from them.* Let the director of public safety, when he says his prayers, pay particular attention to the petition: 'Lead us not into temptation, but deliver us from evil.'

"The way to oppose the social evil is the way all other evils are opposed; namely, *by enforcing the law.*"

RAVAGES OF SOCIAL PLAGUE

Dr. Leon Ashcraft spoke of the terrible ravages of social disease, which often led to the operating table, sometimes caused sterility and laid the foundation for tuberculosis. Children of infected men and women, he said, are often blind, and are heirs to a disease which affects them through life.

"Economics enter largely into this matter," he said. "Girls do not in many cases receive a wage that supports them. If there could be a minimum wage fixed for women, a wage that would cover the cost of her maintenance, it would greatly reduce the number of women who sell themselves."

Dr. C. Spencer Kinney gave figures to prove that the safety of the race depends upon morality.

Dr. Emma Tolbert Schreiner urged that *the same moral standard should obtain for men as for women.*

Mrs. Alice Stebbins Wells, a woman member of the police force of Los Angeles, California, *the first police-woman in the United States*, a little woman wearing a uniform provided by the Los Angeles police department, and having on her breast a badge shining resplendently, recently addressed a gathering of representative men and women of Philadelphia, and discussed the seamy side of

life, the problems and the complexities, the needs and the demands of men, women and children who turn to the police for protection.

POLICEWOMEN MUST BE GENTLE

Mrs. Wells dispelled in the minds of her hearers the ingrown fear that a policewoman must be masculine and aggressive, must wield a club and shout in stentorian tones, "Move on!" She appeared the embodiment of all things womanly, and approached the subject of her police duties from the viewpoint of a social worker, who has the power of the law behind her, and whose *chief duty is to prevent, rather than to punish, crime*. She declared that the prominent place taken in society, in the business world and the daily activities of street and workshop by women and children, demand that a woman who understands and sympathizes with them should be in an official position to offer them assistance, and she declared there should be women on the police force of every city to meet the growing need for their services.

DISPLACING THE SALOON

"Hundreds of considerations," the speaker said, "enter into the matter of ridding the city of vice. The authorities must take into consideration the liquor question. They must realize that the only thing of real value the saloons have offered to men and women was its social opportunities, and they must replace these with recreation centres and places of amusement. They must remember that young girls and boys will seek relaxation after work, they must police the dance halls and the amusement places, the penny arcades and the skating rinks, and they must take into con-

sideration the fact that *vice is abnormal and clean living normal*, that the question of wages and education enter largely into the present problem of the social evil. The social evil, the temperance question and other moral problems that confront us to-day will not be settled right or permanently in this country until all women succeed in obtaining the power to participate in the governmental and legislative affairs, both State and National."

Mrs. Carrie Chapman Catt, President of the International Woman Suffrage Alliance, representing the organized women of twenty-seven countries, having just returned from a two-year tour of Africa and other Eastern countries, where she, in company with several British women, made a study of vice questions, addressed an audience of about 4,000 at Philadelphia, and told the *most stirring story that has ever been told* of the traffic in girls that goes on in India, in China, in Japan, in Egypt, and in South Africa.

"*One million women*," she said, "*are being sacrificed to-day* in these countries to appease that social system which makes the fallen life possible. Just as numberless girls were sacrificed in olden times to appease the anger of the gods, so are they *sacrificed to-day to appease the demands of men*.

"The governments of Europe that have made Asia their political chessboard, have shut their eyes to the terrible situation, and *the million victims have fallen into a state of unutterable sorrows and resigned despair*. They look like the martyrs must have looked when bound to the stake with the fires rising all around them. No longer can we call the selling of women the 'white slave' traffic, but just the 'slave' traffic, because in addition to our white sisters, we have *our sisters of those alien races who are breathing the fires of the very same Inferno*."

Mrs. Catt was applauded time and again as she advanced

telling arguments in favour of a militant war for better social and moral conditions at home and abroad. She had toured Europe and had made careful inquiries and investigations in many of the foreign countries. Her talk was a sweeping arraignment of the attitude of the foreign governments towards vice and its attendant evils.

"Among the world's greatest problems and *the one that rises above all others in importance*, is the present-day traffic in women. I cannot be silent, though I know there are other things you would prefer greatly to hear. Mine will not be a message of cheer.

"In every land we visited we found officials *willing to give us information on all questions except one—the moral problem*. There seemed to be a close-mouthing conspiracy on the part of the highest officials in the greatest countries of Europe to *keep their own people and the whole world ignorant as to sex morality*.

"We did acquire enough positive knowledge to make us heartsick for the remainder of our lives. The facts as we found them are far too offensive to be proclaimed from a public platform.

"But the time has come when the intelligence of this great world must be awakened to the *enormity of the crimes committed in the name of civilization*. To-day, there has been an awakening as to the 'white slave' traffic.

ONE MILLION WHITE SLAVES

"What is happening is something that is checking this traffic automatically," explained Mrs. Catt. Asia, she pointed out, possesses peculiar advantages as to white slaving, because there concubinage is legalized. There are fathers in many of the Asiatic countries who would sell their daughters into this kind of service for a pittance, and

there are thousands of orphans and widows who are enticed into this life, not knowing the dangers it holds for them.

"The heathen East," she charged dramatically, "sells, and the Christian West buys. And over the markets Mohammedans, Hindoos, Confucians, Christians, Jews and Gentiles preside in friendly equality.

"In truth to-day, to appease a bestiality that is far out of keeping with the twentieth century, hundreds of thousands of maidens are appraised of a certain death."

"In the treaty ports of the East, at least 1,000,000 of these women are in service. The life is but from one to ten years, and thousands are demanded yearly to supply the want.

"On my solemnest oath, what I tell you is true, but I shall not tell you one one-thousandth part of the whole truth.

"It is a plain statement of fact, without any colouring, and should all the facts be put in print, the United States Government would bar them from the mails. In all the great Asiatic ports, but especially in those ports over which flies the British flag, *hundreds of thousands of girls are being exchanged every year for yellow glittering gold*, only to fill the pockets of those whose unbounded greed for profit has made them disregard the most pitiful appeals of the human soul.

"The countries of Asia especially are the most fertile field for this slave traffic; and China and India, where the land is so densely populated, offer the best opportunities for it. But instead of the European powers trying to help China, now that it has passed through a great revolution, to rid itself of this blasphemy, they are burdening her with all kinds of ultimatums. *The East and West have joined hands in the greatest sin on earth.* The West provides the organized machinery, and the East supplies the goods."

Mrs. Catt reverted to the business side of the "white slave" traffic. She said that many persons had the impression that women whose lives are spent in the traffic might gain a degree of wealth.

"The profits," she said, "belong to those who own the white slaves. If ever I was tempted to keep silent as to what I have learned, because I might feel the world did not want to hear it, those faces of resigned despair and unfettered woe would serve to spur me on."

MUST TURN ON SEARCHLIGHT

"It is not because hundreds of thousands of women are being sacrificed that I say this is the mightiest problem of the world. *But it is because in these Eastern dens of vice there is being given a new impetus to that old, insidious disease which has been sweeping over the world for centuries, and which has swept whole races before it.*

An ignorant world, for centuries, has kept a dark screen before this question of sex morality, and it has worked its ravages unmolested. The time has come to tear down this screen and turn the searchlight of common sense upon it. The time has come when we should examine this thing and know more facts concerning it.

"I say," declared Mrs. Catt, as she put forcible emphasis on every word, "*we are partners in this vice when we refuse to give it our attention and the benefit of our investigation.*"

Not only would Mrs. Catt strike at the "white slave" traffic as it pertains to the bondage of white girls, but also as it holds in its grip the black and yellow girls in the other countries.

"*This evil must be eradicated,*" she said. "I go further. Not only must this traffic in women go, but also

prostitution—the institution it feeds—must be wiped out, root and branch.

"I refuse to believe it is natural and necessary. *Nothing is natural and necessary which requires the sacrifice of millions of lives.* This evil is one that men and women must fight together with ballots.

URGES HIGH MORAL SENSE

"There is but one great force, however, which can give the solution of this question a great and stirring impulse, one power that can save those million women from under the wheels of this mighty Juggernaut. Perhaps you say that you cannot solve this problem, but let me tell you that you can *solve it by applying the principles of science and the doctrines of a higher moral sense to it.*

"That moral sense must come through the ballot of women. Our entire Pacific Coast to-day is safeguarded from this parasitic fungus because of the votes of women, and her political enfranchisement will bring new hope and salvation to her enslaved sisters all over the world.

"I believe the skirts of our country are cleanest of all the nations. And I can see our reformers of the future going down into the pestilential mire and wading onwards to succour these unfortunate brothers and sisters of ours. I can also see our reformers of the future coming up out of this *mire of the blackest crime in the world's history*, into the glorious presence of a purified and regenerated human race."

Reginald Wright Kauffman, author of "The House of Bondage," in addressing the National American Woman Suffrage Convention, at Philadelphia said, "Woman is still a slave and every woman who is placed in the position of slavery because of economic, physical or moral conditions

is in the accepted sense a ‘ white slave.’ ” Mr. Kauffman declared that never will woman be socially free until man’s economic and political equal, and until she can dictate to him, stand on a *basis of equality in sex matters and demand that he and she share the same code of morals and the same standard of life.*

TELL THE CHILDREN THE TRUTH

Dr. Milton J. Rosenau, of Harvard University Medical School, and a distinguished authority as Sanitarian and on Preventive Medicine and Hygiene, in a recent lecture on “ Heredity and Sex Attitude,” spoke in advocacy of general instruction of Sex Hygiene, and said that *young children should have their questions answered truthfully*, even though they do not understand. Their questions almost always concern maternity, and have nothing to do with sex, in the youthful mind. *It is better to get proper information in this way than perverted information from vicious associates.* He called attention to the fact that the Bible treated sex subjects with the *greatest frankness*, which is the present-day attitude. In fact, it is *impossible to make progress so long as the old programme of dealing with these subjects, only in whispers and in privacy, prevails.* *Let the children know the truth!*

Miss Jane Addams, head of the famous “ Hull House ” centre for social service, and recognized as *the foremost woman social worker of America*, also addressed the Philadelphia meeting that passed the resolution that resulted in the appointment of the Vice Commission to make a thorough investigation of vice conditions as they exist in the “ City of Brotherly Love.” The views of Miss Addams are of greatest importance, especially because she is a social worker who *reduces her views and words to actions.* She

acts as she thinks and speaks. Her thoughts are expressed in her actions as well as in her words. *Her life work has been for the betterment of social conditions.* She knows the conditions as they are. She knows what methods have improved conditions in the past, so *the world should give heed* to her suggestions and recommendations as to what will improve conditions in the future. *By her written permission,* we quote from her new book, "A New Conscience and an Ancient Evil," the following:

"No great wrong has ever arisen more clearly to the social consciousness of a generation than has that of *commercialized vice* in the consciousness of ours, and that we are so slow to act is simply another evidence that *human nature has a curious power of callous indifference* towards evils that have been so entrenched that they seem part of that which has always been. Educators, of course, share this attitude; at moments they seem to intensify it, although *at last an educational movement in the direction of sex hygiene is beginning in the schools and colleges.*

"The primary schools now strive to satisfy the child's first questionings regarding the beginnings of human life and approach the subject through simple biological instruction, which at least places this knowledge on a par with other natural facts. Such teaching is an enormous advance for the children whose curiosity would otherwise have been satisfied from poisonous sources, and who would have learned of simple physiological matters from such secret under-currents of corrupt knowledge as to have for ever perverted their minds.

"Our public school education is so nearly universal, that if the entire body of the teachers seriously undertook to *instruct all American youth in regard to this most important aspect of life,* why should they not in time train their pupils to continence and self-direction, as they already discipline

their minds with knowledge in regard to many other matters? Certainly the extreme youth of the victims of the 'White Slave' Traffic, both boys and girls, places *a great responsibility upon the educational forces of the community.*

"It is incomprehensible that a nation, whose chief boast is its free public education, that a people, always ready to respond to any moral or financial appeal made in the name of children, should permit this *infamy against childhood to continue!* Only the protection of all children from the menacing temptations which their youth is unable to withstand, will prevent some of them from falling victims to the 'White Slave' Traffic; *only when moral and sex education is made effective and universal will there be hope for the actual abolition of commercialized vice.*"

Many pages could be filled with similar statements of views and facts from men and women devoting their lives for the advancement of civilization, all of whom believe in the *necessity of teaching sexual truths*, which, according to the light of the latest researches of Medical Science, are set forth in this book on the plane of the ideal, the purpose being to dispel the morbidity that may prompt some to the perusal of this book, and to supplant this morbidity with such authoritative knowledge of this subject as will make every reader of this book a *crusader for the suppression of those sexual evils* that are seeking to destroy the purity and sacredness of the homes of our country, which are *the very foundation of human society.*

The author believes that the only way to improve and purify the conditions of to-day is by such a *system of sexual education* as suggested throughout the pages of this book, beginning with the little children in the homes, telling them the *true story* concerning the great truths of life, rather than fiction, such as the "Stork Story," which sooner or later

will prove false in the minds of the children, and will influence them to look to others for the knowledge they *should get from those nearest and dearest to them*, those who, through the plan of Nature, *gave them life*, and who *should also teach them* the great truths of life, in order that they may live up to the plane of the ideal, and *so live up to the best that is in them*, not only for their own welfare and happiness, but that the influence of their lives may be for all that is good and holy, through all time and eternity. Surely, lives so *precious* when they are children, *should be protected by such knowledge* of the great truths of life as will prove to be the *greatest safeguard* for them all along the journey of life.

This book goes forth to the world, in the hope that the great fundamental truths of life herein set forth, may be to humanity a *foundation of truth* on which the present and future generations shall build such lives of *true and noble manhood and womanhood* as were designed by the Creator, when, as the Bible tells us, "God created man in his own image."

It is the hope of the author that these great truths *may become universal knowledge*, and so be a part of the very lives of the young children while still at mother's knee, and while under the father's care and influence, and throughout the sojourn of life, helping them to fight bravely and heroically the battles of life, especially the *sexual battles*, and winning, with the "sword of sexual truth," those *victories over self and passion* that will help wonderfully in doing their part to *work out their destiny in harmony with the design of Nature's God*, through obedience to the laws of Nature and the laws of the Creator, respecting the highest form of animal creation—MAN.

